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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 226

[Docket No. 090224232-0457-04]

RIN 0648-AX50

Endangered and Threatened Species: Designation of Critical Habitat for Cook Inlet Beluga Whale

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: We, the National Marine Fisheries Service (NMFS), designate critical habitat for the Cook Inlet beluga whale (Delphinapterus leucas) distinct population segment (DPS) under the Endangered Species Act (ESA). Two areas are designated, comprising 7,800 square kilometers (3,013 square miles) of marine habitat. In developing this final rule we considered public and peer review comments, as well as economic impacts and impacts to national security. We have decided in the final rule to exclude the Port of Anchorage (POA) in consideration of national security interest. Additionally, consistent with the proposed rule, portions of military lands were determined to be ineligible for designation as critical habitat. We solicited comments from the public on all aspects of the proposed rule, and conducted four public hearings on the action. Along with the proposed rule, we published a draft economic impacts analysis, entitled "Draft RIR/4(b)(2) Preparatory Assessment/IFRA for the Critical Habitat Designation of Cook

Inlet Beluga Whale." This economic analysis has been completed to support the final designation. See "Final RIR/4(b)(2) Preparatory Assessment/FRFA for the Critical Habitat Designation of Cook Inlet Beluga Whale" for a discussion of these topics.

DATES: This rule will become effective on [insert date 30 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: The final rule, maps, status reviews, and other materials supporting this final rule can be found on our Web site at: http://www.fakr.noaa.gov/.

FOR FURTHER INFORMATION CONTACT: Brad Smith (907-271-3023), Kaja Brix (907-586-7235), or Marta Nammack (301-713-1401).

SUPPLEMENTARY INFORMATION:

Rulemaking Background

We are responsible for determining whether species, subspecies, or distinct population segments (DPSs) are threatened or endangered and for designating critical habitat for these species under the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.). On October 22, 2008, we published a Final Rule to list the Cook Inlet beluga whale as an endangered species (73 FR 62919). At the time of listing, we announced our intent to propose critical habitat for the Cook Inlet beluga whales. This critical habitat was subsequently proposed on December 2, 2009 (74 FR 63080). The proposed rule's critical habitat for the Cook Inlet beluga whale was determined by considering information received in response to our Advance Notice of Proposed Rulemaking, sighting reports, satellite telemetry data, The Traditional and Ecological Knowledge of Alaska Natives (TEK), scientific papers and other research, the biology and ecology of the Cook Inlet DPS of beluga whales, and information indicating the presence of one or more of the identified primary constituent elements (PCEs) within certain areas of their range.

The proposed rule identified “specific areas” within the geographical area occupied by the Cook Inlet beluga whale to be proposed as critical habitat.

We considered various alternatives to the critical habitat designation for the Cook Inlet beluga whale. The alternative of not designating critical habitat for the Cook Inlet beluga whale would impose no economic, national security, or other relevant impacts, but would not provide any conservation benefit to the species. This alternative was rejected because such an approach does not meet the legal requirements of the ESA and would not provide for the conservation of Cook Inlet beluga whale. The alternative of designating all eligible occupied habitat areas also was considered and rejected, because some areas within the occupied range were not considered to be critical habitat, and did not contain the identified physical or biological features that are essential to the conservation of the Cook Inlet beluga.

An alternative to designating critical habitat within all eligible occupied areas is the designation of critical habitat within a subset of these areas. Under section 4(b)(2) of the ESA, we must consider the economic impacts, impacts to national security, and other relevant impacts of designating any particular area as critical habitat. We have the discretion to exclude any particular area from designation as critical habitat if the benefits of exclusion (i.e., the impacts that would be avoided if an area were excluded from the designation) outweigh the benefits of designation (i.e., the benefits to the Cook Inlet beluga whale if an area were designated), so long as exclusion of the area will not result in extinction of the species. Exclusion under section 4(b)(2) of the ESA of one or more of the areas considered for designation would reduce the total impacts of designation. The determination to exclude any particular areas depends on our ESA 4(b)(2) analysis, which is described in detail in the ESA
4(b)(2) analysis report.

This final rule includes several small changes to the areas proposed as critical habitat and, importantly, excludes under Section 4(b)(2) the Port of Anchorage (POA) from designated critical habitat for reasons relating to national security. We corrected errors within the proposed rule's descriptions of the boundaries for this critical habitat so that the final rule utilizes the coordinate system of degrees, decimal-minutes. We have also changed the sentence structure of the PCEs concerning noise and toxins in the final rule to improve clarity.

The total quantifiable economic impact associated with this final rule is estimated to be between $157,000 to $472,000 (discounted at 7 percent) or $187,000 to $571,000 (discounted at 3 percent). While we have excluded a small portion of the area originally proposed as critical habitat for national security reasons (the POA), that exclusion does not affect the economic impact analysis because the small size of the area indicates that the potential cost-savings are likely nominal (i.e., consultations will continue to occur to ensure proposed activities in those areas do not jeopardize the species or adversely modify or destroy adjacent areas of critical habitat). Additional economic impacts, both costs and benefits, that were not amenable to quantification, but nonetheless important to a complete evaluation of this action, were identified and analyzed qualitatively. Both the quantitative and qualitative economic effects of the final rule are presented, in detail, in the Final Regulatory Impact Review/4(b)(2) Preparatory Assessment/Final Regulatory Flexibility Analysis. We promulgate this final rule because it results in a critical habitat designation that provides for the conservation of the Cook Inlet beluga whale, without economic effects of sufficient significance to warrant an exclusion from designation on that basis alone. Other areas within the species' range did not contain the identified physical or biological features that are essential to the conservation of the Cook Inlet beluga. This alternative also meets the requirements under the ESA and our joint NMFS-USFWS

regulations concerning critical habitat.

Cook Inlet Beluga Whale Biology and Habitat Use

The beluga whale is a small, toothed whale in the family Monodontidae, a family it shares with only the narwhal. Belugas are also known as “white whales” because of the white coloration of the adults. The beluga whale is a northern hemisphere species that inhabits fjords, estuaries, and shallow waters of the Arctic and subarctic oceans. Five distinct stocks of beluga whales are currently recognized in Alaska: Beaufort Sea, eastern Chukchi Sea, eastern Bering Sea, Bristol Bay, and Cook Inlet. The Cook Inlet population is numerically the smallest of these, and is the only one of the five Alaskan stocks occurring south of the Alaska Peninsula in waters of the Gulf of Alaska.

A detailed description of the biology of the Cook Inlet beluga whale may be found in the Proposed Listing Rule (72 FR 19854; April 20, 2007).

Summary of Comments and Responses

We requested comments on the proposed rule to designate critical habitat for Cook Inlet beluga whales and supporting documents (74 FR 63080; December 2, 2009). To facilitate public participation, the proposed rule was made available on our regional web page, and comments were accepted via standard mail, e-mail, and through the Federal eRulemaking portal. In addition to the proposed rule, several draft documents supporting the proposal, including an economic report, were posted. In response to comments, the original 60-day comment period was extended an additional 30 days, ending on March 3, 2010. Public hearings were held in Kenai, Soldotna, Wasilla, and Anchorage, Alaska.

We received 135,463 individual submissions in response to the proposed rule (including public testimony during the four hearings). This included 134,959 form letter submissions and

504 unique submissions. The majority of comments concerned economic and other impacts for consideration for exclusions, the regulatory process for critical habitat designation, legal issues, essential features or PCEs, additions to critical habitat, and biological issues.

We have considered all public comments, and provide responses to all significant issues raised by commenters. We have not responded to comments outside the scope of this rulemaking, such as whether NMFS' prior decision to list the Cook Inlet beluga whale as endangered was proper. We have categorized comments by issue and, where appropriate, combined similar comments.

General Comments on Critical Habitat.

Comment 1: In the proposed rule's discussions at 74 FR at 63084, NMFS has not listed activities that will deter use of or access to Area 1 by beluga whales.

Response: In the referenced paragraph, we simply endeavored to provide a description of the habitat values and associations within the proposed areas, along with a discussion of why these areas may be sensitive or vulnerable to various stressors. Later in the proposed rule, we provided a brief description of those activities that may adversely modify critical habitat, or that may be affected by the designation. See 74 FR at 63089. Examples of activities that may deter use or access could include causeways, dams, bridges, or tidal generation projects.

Comment 2: Cook Inlet anadromous fish runs are healthy and appropriately protected under existing regulatory mechanisms.

Response: We recognize and acknowledge that the current management structure of the salmon fisheries has generally provided for the sustained harvest and productivity of salmon in Cook Inlet. However, it should also be noted that there are problems inherent with any management system. The size of several king (Chinook) salmon returns in 2009 and 2010 was

substantially below average, resulting in closures of sport and commercial fisheries in the Inlet. The Deshka River king salmon runs were extremely low in 2008 and 2009, resulting in closures. The Susitna River sockeye salmon runs failed to meet minimum escapement goals for 5 of 7 years between 2001 and 2007. Sockeye commercial harvests for the Northern District of Cook Inlet fell from an average of 180,000 fish in the 1980s to an average of 26,000 since 2002. The Alaska Department of Fish and Game forecasts Kenai River sockeye runs to be below average for 2010, citing management decisions leading to over-escapement as a contributing factor.

Comment 3: The final rule should acknowledge the riparian protections under the State's forest practices, as well as other regulations that protect water quality and other protections.

Response: While there exist myriad environmental and conservation laws, restrictions, and practices at State and local levels, these are not pertinent to this designation unless they concern whether the identified essential features of that habitat "may require special management or protection." The fact that the State and local governments have instituted such measures is some evidence that these essential features do in fact require special management.

Comment 4: NMFS should provide supporting evidence for its identification of the tendency for belugas to occur in high concentrations, predisposing them to harm from events such as oil spills, as reason for designation of Area 1. The statement is speculative. This commenter also challenged our evidence that oil spills are a threat to beluga whales or predisposes them to harm, that these areas are susceptible to oil spills, or that spills are likely to occur here.

Response: We had not proposed this fact to be a "reason" for designating critical habitat. We disagree this statement is speculative, as there are multiple lines of evidence, including NMFS' 2008 Conservation Plan for Cook Inlet Beluga Whale and many peer reviewed studies,

that beluga whales occur seasonally in high densities within specific areas of the upper Inlet. Our purpose in these statements was not to provide an exhaustive assessment or analysis of oil spills, but to indicate the ecological attributes of Area 1 to Cook Inlet belugas and to recognize the sensitivities imposed by their habit of occupying relatively small, enclosed areas for feeding and other purposes during the open water months. The occurrence of these whales in high densities here not only predisposes them to potential harm from hazardous material releases, but also disease outbreaks, harassment, poaching, and other factors.

Comment 5: Additional research is needed to support proper management of the Cook Inlet beluga whales including this critical habitat designation.

Response: We agree generally that additional research is needed, and we identified in the 2008 Conservation Plan the need to "improve our understanding of the biology of Cook Inlet beluga whales and the factors limiting the population's growth." See: Conservation Plan for the Cook Inlet Beluga Whale (Oct. 2008) at 63. We disagree, however, that additional research is needed to support the designation of critical habitat. The ESA requires NMFS to designate critical habitat concurrently with the listing decision, 16 U.S.C. 1533(a)(3)(A)(i), and to base that decision on the "best scientific data available," id., section 1533(b)(2). We have used the best scientific data available in designating critical habitat for the Cook Inlet beluga whale. We are not required to conduct field research prior to designating critical habitat.

Comment 6: NMFS must link its critical habitat determinations to credible threats, and must fully explain its rationale for designating Area 2 as critical habitat.

Response: There is no requirement to link designation of critical habitat with threats. We are required to base critical habitat designations on physical or biological features essential to the conservation of the species and which may require special management considerations or

protection, as we have done in this rule. Our discussion of potential threats to critical habitat was provided so the reader might better understand the proposed designation in context of the biology of the Cook Inlet beluga whales and the various stressors that may occur in these areas. Such a discussion also assists in the description and evaluation of those activities which may adversely modify the critical habitat or otherwise be affected by the designation. We believe the Proposed Rule presented the best scientific data and information available which justify the inclusion of Area 2 as critical habitat. We described the known or probable habitat attributes of this area, including use for fall and winter feeding, and discussed distribution and dive behavior of these whales within the area, which also support the feeding and overwintering habitat values here. We identified several essential physical and biological features of critical habitat for Cook Inlet beluga whales, established that those features were found within Area 2, and confirmed that they may require special management or protections, as required by the ESA. We agree that present knowledge of the habitat characteristics of Area 2 is less than that of Area 1, and that it is desirable to gather additional data to better understand the habitat needs of beluga whales here. However, we do not find that the existing information, nor the discussion and analysis of the area within the Proposed Rule, were insufficient. Further, none of the commenters provided data or information contradicting the data on which the proposed rule relied.

Physical or Biological Features Essential for Conservation (PCEs)

Comment 7: We received many comments concerning the PCEs, or essential features, indicating some confusion and uncertainty regarding their function and significance. Others felt that our identification of PCEs was flawed because these are not presently impeding the recovery of Cook Inlet beluga whales, or that the PCE thresholds are set unreasonably. Still others believe

that a PCE equates to adverse modification or other objectionable standard by which various activities and projects would be prohibited.

Response: The ESA defines critical habitat in terms of essential physical or biological features, and Federal regulations require us to focus on these features in the designation process. It is not necessary that a feature be presently impaired or limiting, only that it provide an essential service or function to the conservation of the listed species and may require special management considerations or protection. Also, a PCE is not meant to describe a threshold condition beyond which critical habitat would be adversely modified or destroyed. Rather, potential threats to the PCEs will often be the factors evaluated in making determinations regarding whether a proposed Federal action will adversely modify or destroy critical habitat. For example, we believe an essential physical feature to be the unrestricted passage and movement of beluga whales among critical habitat sites. A project, such as a dam, could potentially isolate parts of the whales' critical habitat and prevent movement among the sites. In evaluating the effects of such a project under section 7 of the ESA, we would consider whether this isolation would impact beluga whales to a degree that critical habitat was no longer functional to the conservation of the species. If it caused the loss of either of these functional values, we would consider this adverse modification. However, the mere fact that the project may isolate parts of the critical habitat or prevent movement among those sites would not, in itself, constitute adverse modification or destruction of critical habitat. Similarly, a project that caused whales to abandon critical habitat may not necessarily result in a determination of adverse modification or destruction of critical habitat, unless such abandonment would preclude the conservation of these whales.

Comment 8: The essential features identified in the proposed rule are important for beluga survival, but NMFS has not demonstrated these features are limiting the production or recovery of these whales.

Response: The ESA defines critical habitat in terms of those physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. The ESA does not define the word "essential." We agree with the commenter that the identified features are important for beluga conservation, and believe this importance is such that they may be considered "essential." We disagree, however, that the features must be found to be limiting to the species before they may be considered essential. A limiting factor may be described as one that controls a system or species (such as air), or one that is present in the smallest supply relative to the demands of the system/species (perhaps a prey species). In either case, the ESA contains no requirement that essential features are restricted to those that may be limiting. Our approach will vary to fit the circumstances of a particular species.

Comment 9: The identified PCEs lack specificity (e.g., "The absence of toxins or other agents of a type or amount harmful to beluga whales"). NMFS should identify threshold values for all PCEs as it has for in-water noise.

Response: The ESA requires that we premise the designation of critical habitat on essential features, and the regulations at 50 CFR 424.12(b) describe the PCEs as including, but not limited to, roost sites, nesting grounds, spawning sites, water quality or quantity, tides, and vegetation types. Clearly, these descriptions are general in nature and, we believe, far less descriptive than those presented in the proposed rule. We relied on the best scientific data available to provide as much specificity as possible. None of the commenters have provided data

allowing us to further refine our description of the PCEs. The condition of adverse modification will be determined, in part, on whether an activity impairs the functional value of the essential features to the point that they cannot provide for the conservation of the species. In adding as much description to these features as permitted by the best scientific data available (e.g., not just "pollutants," but the "absence of toxins or other agents of a type or amount harmful to beluga whales") it is our intent to avoid the situation where any activity that may be associated with one or more essential feature would be considered as causing the adverse modification or destruction of critical habitat. We have also modified the wording of this PCE in the final rule to improve clarity.

Comment 10: NMFS needs to present data to support its explanation for equating "mudflats" with "shallow and nearshore waters proximate to certain tributary streams." NMFS should defend its rationale for delimiting this feature to waters within the 30-foot (9.1 m) depth contour. NMFS has arbitrarily expanded this PCE beyond that described in Goetz et al. (2007).

Response: Relying on the best scientific data available, the proposed rule explains the habitat attributes and importance of nearshore areas to Cook Inlet beluga whales. These whales selectively occupy these areas during the ice-free months, and may display year-round association with the nearshore zones of Cook Inlet. We believe this affinity is due to feeding strategies and perhaps breeding, calving, molting, and predator avoidance. Research on beluga whales elsewhere has found beluga distribution may be associated with depth and bottom structure, as well as prey abundance. Using these data, we next considered the results of Goetz et al. (2007) which found significant associations between summer distributions of Cook Inlet belugas, mudflats, and flow accumulation. The Goetz et al. (2007) paper is important in that it provides the first spatial representation of this habitat attribute, and supports the observations of

other research as well as the TEK of Alaskan Natives. The paper does not incorporate data on other factors potentially relevant to beluga distribution in Cook Inlet such as water temperatures, turbidities, salinities, or the fish species and strength of fish runs for these waters. That paper states "The occurrence of beluga whales near stream mouths may reflect a feeding strategy whereby belugas take advantage of highly-concentrated fish runs in shallow channels where they are easy to catch", and found the majority of sightings were within 11.5 km of medium flow accumulation inlets. The Goetz et al. (2007) paper, however, is not the sole scientific basis for our determination, nor is it necessarily the most significant. It is clear that many of the areas identified as in the Goetz et al. (2007) paper as "mudflats," are rarely associated with beluga sightings. In reviewing the best scientific data available, we found that whereas the Goetz et al. (2007) paper's use of "mudflats" implies a condition of the seafloor material, this feature is best described by its tidal exposure. Therefore, in identifying the PCE, we used the qualifier of waters less than 30 feet (9.1 m) in depth to clarify what was described as "mudflats" by Goetz et al. (2007). We also felt that, while this feature covers a range of over 7 miles (11.5km) in which most whales have been found, a radial distance of 5 miles (8.0 km) from the high and medium flow distribution inlets is more descriptive of the actual distribution of these whales and the essential feature, in consideration of the best aerial and satellite data available.

Comment 11: NMFS relied too heavily on Goetz et al. (2007), a paper with serious flaws. NMFS should have incorporated fish runs into its models, and has arbitrarily ignored this important element.

Response: We relied on the best scientific data and information available, including models such as the one developed by Goetz et al. (2007), in preparing the proposed rule. We did not develop new models as part of the rulemaking, and the ESA does not require us to do so or to

conduct field research. Rather, we are required to designate critical habitat on the basis of the best scientific data available. Goetz et al. (2007)'s research and paper were not conducted to define critical habitat. Goetz et al. (2007) exists as one of several sources we considered during this rulemaking. Both NMFS and the paper itself recognize the paper's limitations from not including various physical and biological variants, most notably anadromous fish species and run strengths. Despite this information, the list of high and medium flow accumulation waters reported in the paper indicate that all such rivers are anadromous fish waters and that flow accumulation has some association, and may be a reasonable proxy, for anadromous fish. The inclusion of fish species or numbers of anadromous fish utilizing these waters would not change the list, but could only add another descriptive layer to this essential feature. The utility of such additional description is unclear and probably non-existent.

Comment 12: NMFS has incorrectly used Goetz et al. (2007) to identify PCEs within Area 2, particularly for winter periods for which this paper did not include data. Applying this model to winter has resulted in NMFS incorrectly identifying habitats that are impossible or highly improbable for belugas to inhabit.

Response: While we included the Goetz et al. (2007) paper in our consideration of scientific research and literature related to critical habitat and adopted its conclusions as representative and supportive of our proposed designation, we are not necessarily in agreement with every statement made within the paper. This is particularly true for the paper's assertion that sea ice in winter makes inhabiting shallow waters too hazardous for marine mammals. While the paper does not define what depths were considered to be "shallow," there is ample evidence that beluga whales occur in such areas during winter. Indeed, beluga whales are variously described as "ice associated" or "ice dependent" species, and we know of no beluga

population that is not found within areas subject to seasonal ice formation. Satellite tagging data (see NMFS' 2008 NMFS Conservation Plan for the Cook Inlet Beluga Whale) from Cook Inlet beluga whales indicates that these whales are found in nearshore areas during winter; in fact these data show whales occupying the heads of Turnagain and Knik Arms during periods in which maximum ice coverage would be expected.

While Goetz et al. (2007) did not include (or have access to) distribution data for winter months, Goetz et al. (2007) presents other information demonstrating the importance of nearshore areas proximate to anadromous fish streams as an essential habitat attribute. This attribute within Area 2 exists during the late summer and fall months, as whales move west and south transitioning from summer habitat in the upper Inlet to winter habitats. During this time, we believe the whales take advantage of the late coho runs along the west side of Cook Inlet. This behavior occurs well before seasonal ice formation (sea ice is much less prevalent in the lower Inlet), and we believe it is reasonable to assume the physical qualities of nearshore feeding habitat near salmon streams in July are similar to those for nearshore feeding habitat near salmon streams in October. The 2008 NMFS Conservation Plan for the Cook Inlet Beluga Whale includes sighting data of beluga whales in the lower Inlet, and suggests these areas were important habitat sites when the beluga whales were more abundant.

Finally, we emphasize the critical habitat boundaries are not drawn around the essential features/PCEs. Rather, these features delineate critical habitat from non-critical habitat. The best scientific data available indicates that the critical habitat area referred to as Area 2 contains anywhere from one to all of the identified physical or biological features essential to the whales' conservation.

Comment 13: NMFS should list all the waters it considers to be high and medium flow accumulation rivers for purposes of describing the PCEs.

Response: We have included this list on our Regional website (see ADDRESSES above).

Comment 14: NMFS should include pink salmon, Pacific herring, and long-finned smelt as PCEs.

Response: We identified important prey species as essential biological features or PCEs based on the results of research on fatty acid signatures and stable isotope analysis from beluga whale tissue, stomach samples from Cook Inlet belugas, and traditional knowledge. We did not find the proposed species were well-supported by these sources and cannot determined that they are essential based on current knowledge.

Comment 15: NMFS' proposed PCE "The absence of toxins or other agents of a type or amount harmful to beluga whales" is too vague. There are readily available data defining the types and amounts of contaminants that would be harmful to beluga whales, but NMFS has not used this information.

Response: Please see our earlier response to comment #9 regarding specificity within the definitions of essential features and PCEs. We relied on the best scientific data available in designating critical habitat for the Cook Inlet beluga whale. We are not aware of any existing data that would allow for greater specificity concerning harmful contaminant levels in beluga whales, and none of the commenters provided any or indicated a specific source of such data. We recently contracted for an assessment of risks to beluga whales from chemical exposures (URS, 2010), that found "reliable and quantitative information that related measured body burdens to observed adverse effects is lacking, especially within a dose-response context."

Information relating to the presence of persistent organics, measured primarily in the whales' blubber, exists, and there are some studies on the presence of methylmercury and other metals, but very little or no toxicity information is available for beluga whales and other marine mammals regarding the majority of harmful chemicals. The assessment report goes on to state that, even for those few studies in which some threshold values are presented for other species, such studies are fraught with uncertainty and should be viewed only as a preliminary comparison to determine whether further evaluation is warranted.

We believe that, had we employed threshold values of chemicals which arguably cause "harm" to other species, we would have created an assessment methodology for adverse modification of critical habitat that could be both insufficiently protective of these whales and unnecessarily restrictive. The toxin PCE as promulgated provides the best level of specificity possible in light of the best scientific data available. This PCE does not simply include all pollutants; it includes only those of a type and quantity/concentration harmful to beluga whales. Moreover, it is important to note that the introduction of any pollutants that are harmful to beluga whales would require the evaluation of the effect of such pollutants on the PCE, but it would not necessarily equate to adverse modification. We would evaluate the proposal by considering the implications of the harmful pollutants to the PCEs and to the conservation of Cook Inlet beluga whales.

Comment 16: Unrestricted passage between habitat areas is consistent with the knowledge of the spatial and temporal dynamics of the primary beluga prey species, yet NMFS has shown no evidence that passage is being restricted to the extent of limiting productivity or recovery.

Response: Please refer to our earlier response to comment #7 concerning limiting aspects of habitat and their relation to essential features and PCEs. We agree that no evidence currently exists indicating that passage among critical habitat areas is impeded to the extent of preventing recovery. The validity of this condition as a PCE is not dependent on whether it is limiting to the population. The Conservation Plan includes discussion of various threats to these whales, many of which could impede access among critical habitat sites. An action that would result in restricted passage would not necessarily result in a finding of adverse modification. Under section 7 of the ESA, we will evaluate a proposed Federal action's potential to destroy or adversely modify critical habitat by considering the implications of any restriction on the movement among critical habitat sites to the conservation of Cook Inlet beluga whales.

Comment 17: NMFS's proposed PCE "The absence of in-water noise at levels resulting in the abandonment of habitat by Cook Inlet whales" is too vague. NMFS should provide an objective, measurable noise level in the definition of this PCE.

Response: We developed each PCE based on the best scientific data available. Because empirical data exist to help us understand the noise levels at which beluga whales may react behaviorally or become injured, it is reasonable to assume quantified standards could be developed in the future for this PCE. Existing data, however, are based on relatively few animals held in captivity and the qualitative results of various field observations and research. We currently recognize in-water noise exceeding 120 dB re 1 μPa as the threshold for harassment of marine mammals presented with a continuous noise source, and 160 dB re 1 μPa for impulsive noise. However, ambient (background) in-water noise levels in lower Knik Arm presently exceed 120 dB, and we felt it unnecessarily restrictive to describe this standard as a PCE. Similarly, the 160 dB threshold relates to harassment. We do not have a standard value

for the level of noise above which beluga whales may permanently abandon habitat. From research and monitoring of in-water work in Cook Inlet, it is apparent that beluga whales have not abandoned habitat areas due to temporary exposures to noise at this level. Therefore, this numeric standard may also be too restrictive. There exists considerable variability in the reaction of whales to noise, depending on the nature of the noise, life history, behavior, sex, context, tolerance, and adaptation. The science of marine mammal acoustics is very complex and made more difficult within the dynamic setting of Cook Inlet. As a result, we can only assign a qualitative standard to this PCE unless and until data become available allowing us to assign a quantitative standard.

Comment 18: NMFS should describe the PCE addressing in-water noise as "the absence of in-water noise that results in adverse impacts to the species' survival and recovery." The commenter points out that noise below levels that may cause whales to abandon habitat areas could still have severe impacts on these animals.

Response: The commenter's proposed PCE is not that functionally different from the one proposed in one important respect. When we evaluate a Federal action under section 7 of the ESA, we will consider whether the action will introduce noise that will result in the abandonment of critical habitat and whether such abandonment will, in turn, affect the whales' conservation. We will also consider whether the noise would affect the whales' survival because section 7 directs Federal agencies to ensure that their actions do not (a) result in the destruction or adverse modification of critical habitat or (b) jeopardize the continued existence of the species. The commenter's proposed PCE combines these two standards (and conflates them, a formulation which the Ninth Circuit struck down in Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059 (9th Cir. 2004)).

Comment 19: The PCE concerning noise should be re-worded to reduce the noise levels permitted to 120 dB or lower, reduce the duration of allowable noise, and reduce the frequency of anthropogenic noise.

Response: The identified essential features or PCEs are not intended to be limitations or stipulations. They describe various features of the environment that we consider essential to the conservation of these whales. We do not believe in-water noise levels below 120 dB re 1 µPa are necessary to conserve these whales in all cases. In fact, ambient noise in areas in which these whales occur, such as lower Knik Arm, often exceeds 120 dB. Similarly, behavioral reaction and other consequences of noise exposure (duration and frequency) are difficult to predict. For this reason, we describe this PCE in terms of its effect (abandonment of habitat) rather than a finite quantity or level.

Comment 20: NMFS fails to identify the existing empirical data, or explain the science and rationale used in establishing the noise PCE, and must provide this information along with an additional public comment period.

Response: See previous response. The proposed rule stated that empirical data exist on the reaction of beluga whales to in-water noise for harassment and injury, but are lacking regarding reactions such as avoiding certain areas. The NMFS' 2008 Conservation Plan (pp. 58-60, 66-67) provides a detailed description of the issue of noise and Cook Inlet belugas, and includes references to applicable research and traditional knowledge accounts which support the proposed rule's assessment of the importance of sound to beluga whales.

Comment 21: NMFS needs to acknowledge that beluga whales have co-existed with anthropogenic noise in Cook Inlet for decades and that there is no information or data to indicate noise is a threat or contributing factor to their abundance.

Response: Our discussion on the effects of noise in the proposed rule is consistent with the 2008 Conservation Plan, which identified noise as a potential threat. That plan presents several reasons why noise may be considered a threat, including the facts that noise is known to cause injury or behavioral changes to beluga whales, and that TEK observations associate diminished presence of belugas with in-water noise. The commenter is correct in stating that no data currently exist to place in-water noise as a contributing factor in the decline of the Cook Inlet belugas.

Comment 22: NMFS needs to provide further specificity and thresholds in its description of the PCEs for this critical habitat.

Response: As discussed above, we defined each PCE as specifically as we could, in light of the best scientific data available. Specific, quantitative threshold values would be useful in the formulation of any PCE (e.g., a PCE is gravel between 3.0cm and 7.0cm in diameter, as opposed to spawning material). We are not aware, and none of the commenters provided sources, of any existing data that would allow for greater specificity in the formation of the PCEs for the Cook Inlet beluga whales than that which we used. The ESA does not require us to conduct field research to obtain such data. In light of the time lines for the designation of critical habitat, such research was not feasible.

Comment 23: NMFS has taken a simplistic approach to designating critical habitat by drawing a line around the primary, currently occupied habitat. NMFS should develop a more discrete approach based on the actual presence of PCEs.

Response: The critical habitat identified in the proposed rule was not developed by drawing lines around the Cook Inlet beluga whales' currently occupied habitat. To the contrary, large portions of the occupied habitat were not included with the designation because we

concluded that those areas do not contain features essential to the Cook Inlet beluga whales' conservation which may require special management considerations or protection. We determined the critical habitat boundaries by confirming the presence of one or more of the identified PCEs/ essential features within the critical habitat area, as required by the ESA. We are not required to designate as critical habitat all areas in which a PCE may occur, only that those critical habitat areas contain one or more of the PCEs.

Comment 24: The presence of the identified PCEs is not uniform throughout Cook Inlet, and NMFS should identify those specific areas that actually contain the important habitat features as critical habitat, rather than the areas in their entirety.

Response: We included in the designation of critical habitat only those critical habitat areas that contain one or more of the PCEs. The distribution of the identified PCEs is not uniform. However, we believe the ESA provides some latitude to the designating agency here. The implementing regulations at 50 CFR 424.12 discuss the criteria for designating critical habitat. Part 424.12(d) states that "When several habitats, each satisfying the requirements for designation as critical habitat, are located in proximity to one another, an inclusive area may be designated as critical habitat." Many of the identified PCEs occur throughout Cook Inlet and the proposed critical habitat. Other PCEs, such as shallow areas near median and high flow waters that may be more discretely distributed, are also so numerous as to be nearly a continuous feature. It simply would not be practical or effective in the conservation of the Cook Inlet beluga whale to designate its critical habitat by circumscribing discrete, individual areas around the PCEs.

Comment 25: The list of PCEs NMFS has identified implies other elements are not necessary for the conservation and recovery of Cook Inlet beluga whales, leaving important gaps

that are critical to these whales. NMFS should include as a PCE waters deeper than 30 feet (9.1m) in depth, or demonstrate these are not "essential".

Response: While we acknowledge beluga whales are distributed throughout the Inlet, we believe discrete habitat areas exist that are, in fact, "critical" in the sense that they meet the ESA definition and provide an essential feature (e.g., feeding or calving sites) not necessarily found throughout the occupied range of this species/DPS. Further, scientific data, surveys, and TEK provide support for the identification of such discrete areas, but data are lacking which would support the inclusion of all waters of Cook Inlet. The addition of a PCE of waters deeper than 30 feet (9.1m) would likely not result in the inclusion of any additional areas as critical habitat; rather, it would merely confirm the designation of the existing areas. Future revisions to this critical habitat may be made as new scientific data become available that may alter the list of PCEs or the boundaries of this critical habitat.

Comment 26: NMFS has not provided sufficient rationale to support designation of critical habitat in the nearshore area along the west coast of the lower Inlet nor Kachemak Bay. NMFS should only designate those areas along the west side of the Inlet and in Kachemak Bay that actually contain the habitat features important for belugas.

Response: We disagree. The west side of the Inlet and Kachemak Bay contain one or more of the identified PCEs, and the habitat value and importance of Area 2, which includes these areas, are described in the rule. The offshore boundary for Area 2 of 2 nautical miles (3.2km) reflects the data gathered in Goetz et al. (2007), which found the majority of whale locations to be within 2.7 km of mudflats and 11.5 km of medium flow rivers. While the 11.5 km zone around medium flow rivers would argue for an offset similar to that used in the PCE to describe nearshore waters proximate to certain anadromous waters (5 miles, or 8km), we felt that

a distance of 2 nautical miles (3.7 km) was more reflective of the actual habitat use based upon the Goetz et al. (2007) model, expertise and observations of NMFS researchers, and the reports and observations of whales in this area by the Alaska Department of Fish and Game, National Park Service, and private parties. Please note also that the 5-mile (8km) distance around these (high and medium flow) anadromous waters describes the PCE, and not the boundary of the critical habitat.

Comment 27: There are discrepancies between the depiction and boundaries of critical habitat within the proposed rule, in that there are differing definitions of Areas 1 and 2 in different sections. The map accompanying the rule was not at sufficient resolution to be useful.

Response: The proposed rule contained several discrepancies in the coordinates and mapping conventions used to describe the boundaries of the critical habitat. Corrections have been made within the final rule. A higher resolution map of this critical habitat will be added to our regional website at http://www.fakr.noaa.gov.

Comment 28: NMFS' statement that "there remain additional and unmet management needs owing to the fact that none of these management regimes is directed at the conservation and recovery needs of Cook Inlet beluga whales" is objectionable. There is no evidence that supports a lack of effectiveness of any of the management regimes in place in Cook Inlet or that any management or regulatory gap contributed to the endangered listing of Cook Inlet beluga whales, or limits its recovery.

Response: The quoted statement does not assert that the lack of effective management in Cook Inlet contributed to the whale's listing or limits its recovery. As explained in the proposed rule, the ESA defines critical habitat as areas on which are found those physical or biological features essential to the conservation of the species and which may require special management

considerations or protection. For each essential feature we identified, we determined that it may require special management considerations or protection. One of the reasons for this finding is the lack of any existing laws, regulations, or practices that provide for the management or protection of these features for the conservation of Cook Inlet beluga whales. It is therefore foreseeable, if not likely, that through the ESA section 7 consultation process, we will offer recommendations to protect the essential features, which would otherwise remain without such protection, in order to ensure the conservation of the beluga whale. We agree that existing laws and regulations provide some benefit to these whales and to their conservation. We disagree with the statement that the endangered status of these whales is unrelated to a lack of effective management. In fact, we believe much of the decline in this DPS is attributable to unregulated subsistence harvest practices prior to regulation and management of these hunts.

Comment 29: Those areas that do not require special management consideration or protections are not critical habitat and are not to be designated as such under the ESA. Existing state and Federal environmental management and regulatory regimes already protect habitat for beluga whales, justifying a more narrow identification of areas as critical habitat.

Response: We disagree. The definition of critical habitat (16 U.S.C. 1532(5)(A)) requires that the physical or biological essential features may require special management considerations or protection, rather than that the area require such protections. Any area may be designated as critical habitat provided it contains one or more of these features, and provided that those features may require special management or protection.

Comment 30: NMFS unjustifiably disregarded comments made during proposed rulemaking identifying the many existing refuges, sanctuaries, state critical habitat areas, legal

protections, and mitigative requirements that provide protection to beluga whales and their habitat.

Response: We recognize that many conservation and environmental actions occur through the efforts of the State of Alaska, local governments, and private concerns. These all contribute to a conservation ethic, undoubtedly benefit the Cook Inlet region environment, and can be beneficial to Cook Inlet beluga whales and their habitat. The ESA provides that, when considering a species for listing as a threatened or endangered species, consideration be given to efforts by any State, or any political subdivision of a state, to protect such species. Generally, a species that would otherwise qualify for listing may be excluded from listing if there are formalized conservation efforts that are sufficiently certain to be implemented and effective so as to have contributed to the elimination or adequate reduction of one or more threats to the species identified through a threats analysis conducted pursuant to section 4(a)(1) of the ESA. However, no such provision exists for the designation of critical habitat. If such provisions existed, it would still be difficult to demonstrate they were effective in providing for the conservation of the Cook Inlet beluga whales, as many of these efforts were in place during the periods in which these whales experienced significant declines, leading to the 2008 listing.

The ESA allows for critical habitat not to be designated if such designation would not benefit the species. Congress intended, however, that in most situations NMFS will designate critical habitat at the same time that a species is listed as either endangered or threatened. It is only in rare circumstances where the specification of critical habitat concurrently with the listing would not be beneficial to the species. See H.R.Rep. No. 95-1625 at 17 (1978), reprinted in 1978 U.S.C.C.A.N. 9453, 9467. In this instance, we have determined that the designation of critical habitat for the Cook Inlet beluga whale would be beneficial to the species by providing specific

protections against Federal actions that would otherwise destroy or adversely modify that habitat. We also identify other benefits, as discussed in the following comment.

Comment 31: Contrary to statements in the Proposed Rule, section 7 consultations are not a benefit accruing from the action, but will only add additional layers of administrative process without additional effective protections for beluga whales or their habitat.

Response: As our analysis of economic impacts from the proposed designation indicates, many, if not most, of the future consultations on Federal actions pursuant to section 7 of the ESA would otherwise be required because of section 7's requirement that Federal agencies not take actions that jeopardize the continued existence of the species (the jeopardy standard). However, the characterization of this designation as an additional layer of process ignores the tangible, benefits that will accrue from it.

The designation of critical habitat and identification of essential physical and biological features will provide procedural and substantive protections, thereby promoting the conservation of the Cook Inlet beluga whale. Procedurally, the designation of critical habitat will focus future consultations on key habitat attributes and avoid unnecessary attention to other, non-essential habitat features. Designation of critical habitat will also provide clarity to the process by alerting Federal agencies to the specific areas and features that should be considered and addressed during these consultations. The designation also educates the public as well as State and local governments, and affords them the opportunity to participate in the designation. Substantively, the designation of critical habitat for the Cook Inlet beluga whale establishes a uniform protection plan prior to consultation. In the absence of such designation, the determination of the importance of the whale's environment would be made piecemeal.

Comment 32: Education and outreach are not justifiable benefits accruing from the proposed designation. In fact, there is concern that this designation will result in a backlash that will undermine conservation efforts generally. NMFS should provide the references for statements regarding the benefits of critical habitat designation as described in the proposed rule, otherwise the list is speculative and should be removed from the final rule.

Response: Education and outreach are qualitative benefits of designation. It is almost certain, however, that the process to date has greatly added to the knowledge of Cook Inlet beluga whales and their critical habitat needs within Southcentral Alaska, and probably extending to much larger geographical and societal divisions. We do not believe such education and awareness has been or will be destructive or undermine conservation efforts. Moreover, courts have recognized the education and outreach benefits accruing from the designation of critical habitat. See, e.g., Conservation Council for Hawaii v. Babbitt, 2 F.Supp.2d 1280 (D. Haw. 1998).

Comment 33: One commenter strongly objects to the stated benefit of reduced levels of pollution in Cook Inlet, with associated benefits accruing to a suite of ecological services, culminating in an improved quality of life (in the Cook Inlet region). This statement mischaracterizes Cook Inlet, whose waters offer pristine habitat for beluga whales.

Response: We agree that water quality within Cook Inlet is generally high, and that approximately 98 per cent of the shoreline remains undeveloped. However, any characterization of these waters as pristine might be tempered by the facts that the largest communities in the State exist along its shore, municipal wastes and other effluents from these communities are often discharged into the receiving waters of Cook Inlet, numerous fish plants discharge processing wastes into the Inlet, minor and major fuel spills have occurred here, and offshore oil

platforms regularly discharge drilling muds, cuttings, and produced waters into the Inlet. We believe it is reasonable to project improvements in pollution as a benefit of critical habitat designation even though a portion of such benefits may be realized in the future.

Comment 34: NMFS should adopt minimum escapement goals for eulachon and salmon. A minimum density of prey is relevant to the intent of designating critical habitat.

Response: While the importance of these prey species to Cook Inlet belugas is supported by stomach analysis of stranded and harvested whales, TEK, fatty acids, and stable isotope analysis, we do not believe sufficient information exists to determine the energetic requirements of Cook Inlet belugas or to adopt escapement levels, and any attempt to do so would be speculative. We anticipate future research will add to our knowledge of the energetic requirements of these whales and allow some insight into prey selectivity, caloric requirements, feeding behavior and speciation, and run strength within tributary waters that may support a determination of prey requirements. At this time we have no information to suggest prey availability is or has been a factor in the decline or is in need of improvement to promote the recovery of the Cook Inlet beluga whale. We hope to continue to work with the State of Alaska to ensure these whales are considered in fish management planning for Cook Inlet.

Comment 35: NMFS should delete the term “absence of toxins and other agents” in its PCE concerning toxins, which implies that a pristine environment is essential to the conservation of these whales. NMFS should continue to rely on State and Federal water quality standards until specific agents are identified to be detrimental to beluga whales.

Response: We qualify these terms in the definition of the PCE with the clause “of a type or amount harmful to beluga whales,” which we believe avoids creating the implication described by the commenter. The commenter correctly points out that the current exposure of

these whales to various pollutants and tissue analysis have not indicated that Cook Inlet beluga whales carry significant body burdens of many common contaminants and toxins. But beluga whales are top level predators with potential to bio-accumulate toxic substances. Further, the juxtaposition of high densities of Cook Inlet belugas and Alaska's most populated and industrialized region raises a concern for the introduction of pollutants into the Inlet. We believe a PCE that addresses the essential feature of water quality is appropriate here, and the qualification we added to it will avoid unnecessary restrictions on most approved discharges. Existing water quality standards may or may not be protective of marine mammals, including small whales. Also, many pollutants with the potential to harm these animals are not currently regulated or addressed under these standards.

Comment 36: The PCE for toxins should reflect concern for the type and amount of a constituent, rather than for a type or amount. One commenter suggests re-wording this PCE as "The absence of non-naturally-occurring toxins or other agents of a type and amount that would kill or injure Cook Inlet beluga whales or cause prolonged abandonment of their critical habitat areas," providing the rationale that these changes would clarify that Federal agencies are not required to eliminate naturally-occurring harmful substances and replace the vague standard of harm with the effects-based language from PCE number 5 (in-water noise).

Response: While many compounds and agents may be of a type harmful to animals, the actual threat or significance of any exposure is also dependent on their concentrations. We agree with the comment and have changed the wording of the final rule to reflect this. We disagree with the suggested changes to the remainder of this PCE because these qualities or thresholds are more appropriate in defining the condition of this PCE that equates to adverse modification of the critical habitat. That is, while the PCE is generally defined as waters free of harmful

substances, adverse modification will occur when an action results in the addition of substances of a type and amount that causes mortality or other consequences impeding the conservation of the whale. Also, some substances occur naturally in the environment (e.g., mercury), but are also a concern regarding anthropogenic introduction into Cook Inlet. Therefore, we chose not to exclude naturally occurring toxins or other agents, as suggested.

Comment 37: The PCE for in-water noise should be changed to read "The absence of in–water noise that results in adverse impacts to the species survival and recovery" because many noise impacts may adversely affect the species but not result in abandonment of habitat.

Response: The commenter's proposed language attempts to set the threshold for this essential feature or PCE at a level defining adverse modification or destruction of the critical habitat. We disagree with this approach. A PCE describes an essential feature, such as water within a certain temperature range. During a section 7 consultation, we would consider the effects of an action with regard to this PCE and evaluate if those changes would appreciably reduce the conservation value for the species. Defining the PCE to equate to adverse modification would be circular and by-pass this analytical approach. Moreover, the definition espoused by the commenter conflates the standards for jeopardy and adverse modification, a formulation the Ninth Circuit struck down in Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059 (9th Cir. 2004). We have modified the description of this PCE in the final rule to improve clarity.

Comment 38: The PCE for in-water noise should be removed. This finding is inconsistent with that made in the final rule to designate critical habitat for the southern resident killer whale (71 FR 69054; November 29, 2006) which found that noise is an effect to the animal and not to its habitat.

Response: In our final rule to designate critical habitat for the southern resident killer whale, we lacked sufficient information to include noise as a PCE, but noted that we would continue to consider sound in any future revisions of that critical habitat (71 FR 69054; November 29, 2006). We consider in-water noise to be both an effect on these endangered whales and a habitat attribute. It is clear that noise has the potential to alter behavior in whales in a manner that may have biological significance (i.e., to result in a "take" by harassment or injury). We find that noise (or its absence) is also an important characteristic of the habitat within which these whales exist, and is appropriately identified here as an essential feature. We also agree with our previous rule for the southern resident killer whale that current scientific information is not sufficient to quantify the noise levels that may alter habitat to the extent that whales would abandon such areas. However, neither the ESA nor regulations require quantifiable thresholds to be known before any habitat attribute may be considered an essential feature. Rather, the ESA requires that we designate critical habitat based on the best scientific data available, which we have done. Indeed, the regulations (50 CFR 424.12) describe essential physical and biological features to include generically "Food, water, air, light, minerals" without further quantification.

Comment 39: The proposed "noise" PCE does not define or explain what constitutes "abandonment of habitat" and "continuous noise."

Response: We use these terms with their ordinary meaning in mind and offer no specialized descriptions for these terms. Our intent is to avoid having the mere presence of noise, or even noise which might cause harassment, be deemed adverse modification. While we do not believe it is "essential" that the acoustic environment of these whales be free of noise, even noise at levels which might harass whales, we consider it essential for the whales'

conservation that they are not presented with noise that may preclude their use of key habitat areas, particularly those that are important for feeding, breeding, or calving.

Continuous or non-impulsive noise is differentiated from impulsive noises, which are typically transient, brief, broadband, and consist of a rapid rise time. Impulsive noises may be a single event or repetitive. Examples of impulsive noises are explosions, sonic booms, seismic airgun arrays, and impact pile driving. Non-impulsive sources include vessels, aircraft, and vibratory pile driving.

Comments for Exclusions

We received many comments requesting exclusion from critical habitat. These requests concerned excluding navigation corridors, portions of the west and east sides of Cook Inlet, the site of the Knik Arm bridge, the POA, Port Mackenzie, commercial fishing areas, the City of Kenai, Kachemak Bay, and State legislatively-created sites (see below). We prepared an analysis to assess, among other things, the economic impacts attributable to the designation of critical habitat for the Cook Inlet beluga whale. We have determined that, based upon economic impact considerations, there are no proposed critical habitat areas or sites for which the benefits from excluding the area or site outweigh the benefits from designating that area or site. As a result, we have not proposed to exclude any sites on economic grounds. We have not provided a specific response to each individual request that was received and considered here, but we have included responses to all significant issues raised in the comments. We also considered requests for exclusion based on national security and other relevant impacts, and as discussed below, we are excluding a small area connected with the POA from the designation. In light of the impacts to national security, we determined that the benefits of excluding that small area outweigh the benefits of including it.

Comment 40: Critical habitat should be reduced to areas where the beluga whales are most concentrated and should not include areas of historical use.

Response: Generally, critical habitat includes those areas necessary to conserve the beluga whale, which broadly means those areas that will promote its recovery. To determine the boundaries of critical habitat, we identified the specific areas within the geographical area occupied by the whale at the time it was listed on which are found those physical or biological features essential to the conservation of the whale and which may require special management considerations or protection. This process resulted in a proposed designation and, through the notice-and-comment procedure, we refined the critical habitat designation. Our analysis indicates that the inclusion of areas only where the whales are most concentrated would be too narrow. The critical habitat designation does not include areas outside the geographical area occupied by the species as of 2008 because we do not believe that any such area is essential for the whale's conservation.

Comment 41: The POA should be excluded from designation in recognition of it being one of nineteen National Strategic Ports whose functions include the mobilization and embarkation of military vessels for quick deployment around the world.

Response: We have considered this request and find that, in light of the impacts to national security, the benefits of exclusion outweigh the benefits of designating the POA and a small area adjacent to it as critical habitat. The POA supports certain military functions and requirements which cannot be met elsewhere in the State. While air shipment of goods and materials present some alternatives as far as supply lines to military interests in Alaska, many other demands cannot be met without the support of large supply ships calling at this port

facility. The POA also serves as the conduit for all of the jet JP-8 fuel now used at Elmendorf Air Force Base.

We believe that the POA's function in military readiness and role as a National Strategic Port could be negatively affected by designation it and surrounding waters as critical habitat. Therefore, in keeping with the provisions of the ESA, the POA and waters of Knik Arm in front of the Port (i.e., the navigation channels and turning basin) are not designated as critical habitat. We have determined this exclusion will not result in the whale's extinction.

Comment 42: Any exclusion of the POA for reasons of national security should be strictly limited to military activities, and not extend to non-military activities.

Response: Section 4(b)(2) of the ESA provides that the Secretary of Commerce may exclude "any area" from designation as critical habitat for reasons of national security. We did not find any authority to limit these exclusions to a particular activity or entity. Also, certain non-military functions which support the operational readiness of the port, such as maintenance dredging, could impact military operations if they were delayed or otherwise impacted by designation.

Comment 43: Port MacKenzie is significant to national security in providing the ability to efficiently transfer military units, munitions, and general cargo between land and marine modes, and should be excluded from designation.

Response: Port MacKenzie is not currently identified as a strategic port, nor is it adjacent to military lands, accessed by a major road system, utilized for munitions transfers, or serviced by rail. We received no supporting recommendations for this exemption from the Department of Defense (DOD), and did not find reasonable evidence of the need to exclude Port MacKenzie based on national security interests.

Comment 44: The Department of Defense (DOD) reminds us that Congress has mandated that Fort Richardson and Elmendorf Air Force Base be combined into a single facility by October 2010, and that the proposed landward boundary of critical habitat (Mean Higher High Water) would overlay the seaward military boundaries for these lands, which have been established as Mean High Water. They request clarification on this boundary issue.

Response: Because the areas between mean higher high water (MHHW) and mean high water (MHW) are predominately unvegetated mudflats, and because all lands of Fort Richardson and Elmendorf AFB (now combined, Joint Base Elmendorf-Richardson) are administered under an Integrated Natural Resources Management Plan (INRMP) which we found to provide benefit to Cook Inlet beluga whales, these areas are ineligible for designation as critical habitat. Modifications have been made within the final rule to reflect this change.

Comment 45: The commercial and subsistence fisheries for the Native Village of Tyonek (NVT) should be excluded from critical habitat designation.

Response: We believe the commenter is requesting exclusion of those waters which support commercial and subsistence fisheries in and surrounding the Chuitna River, near the NVT under section 4(b)(2) of the ESA. We have considered economic impacts, impacts to national security, and other relevant impacts, including impacts to tribal interests. We conclude that the benefits of excluding any particular area do not outweigh the benefits of specifying such area as critical habitat, except for a small area associated with the POA which we excluded in light of impacts to national security. We emphasize that where no Federal authorization, permit, or funding is required (i.e., no Federal action exists), the activity is not subject to section 7 of the ESA. Therefore, there would be no section 7 consultations costs associated with that activity. Further, we do not believe impacts to tribal interests indicate that the benefits of excluding the

areas that cover the NVT subsistence and commercial fisheries outweigh the benefits of specifying these areas as critical habitat. We have not received comments that indicate tribal interests would be harmed by this action.

Comment 46: The State of Alaska requests exclusion under section 4(b)(2) of the ESA for all legislatively-designated areas, such as refuges, sanctuaries, and critical habitat areas.

Response: We have considered this request. The Secretary of Commerce may use his discretion to exclude areas from critical habitat if the Secretary determines the benefits of such exclusion outweigh the benefits of designation of the area, provided the exclusion would not result in the extinction of the species. The areas in question include the Goose Bay and Anchorage Coastal Refuges, and the Redoubt Bay, Kalgin Island, and Kachemak Bay State Critical Habitat Areas. As stated in an earlier response to comment, we recognize the contribution of such sites to the conservation of the Cook Inlet region, and the direct and indirect benefits they provide to Cook Inlet beluga whales and their habitat. In this case, the State is arguing the benefits we place on including in the designation these legislatively-designated areas be reduced by their existing benefit/value owing to their function in conserving these whales. All of these areas include important ecological and environmental attributes, especially for fish and wildlife. Also, several of these sites include important beluga whale habitats and may have large numbers of beluga whales within their boundaries at various times of the year. Despite the ecological values of these areas and the presence of beluga whales and their habitat, we know of no such State area whose purpose specifically includes the conservation of beluga whales or their habitat. Moreover, neither the Cook Inlet beluga whale nor its habitat is included on the State of Alaska's endangered species list. We believe that the benefits from designation, described in this

final rule, will accrue to the conservation of the Cook Inlet beluga whale, even in those areas currently protected for other purposes by the State of Alaska, such as refuges and sanctuaries.

We also considered the economic impacts associated with the designation as critical habitat of the State legislatively-designated areas. Our economic analysis indicates that the majority of those impacts are associated with the requirement to consult on Federal actions under section 7 of the ESA. Often times, however, such costs are minimal, because the consultation would already be required because the proposed Federal action has the potential to affect beluga whales. Any Federal action that "may affect" an endangered or threatened species requires consultation, regardless of the existence of critical habitat. Because land use and management plans exist for these sites, and many of these areas are remote, there are fewer Federal actions occurring or proposed here than may be expected outside of these refuges, sanctuaries, and critical habitat areas. We, therefore, do not expect the demand for Federal actions in these sites to increase markedly in the future. Additionally, any costs that may be attributable to critical habitat designation would be unlikely to be borne by the State of Alaska, but rather by the Federal action agency or any private entity proposing work here that requires Federal authorization, permits, or funding. Also, any "costs" such as increased consultation on actions that may impair the function of habitat (critical habitat for beluga whales) in these areas may be viewed as a benefit, rather than a cost, in that it may add to the values for which these areas were established.

Therefore, after considering the economic impacts and other relevant impacts described above, we have determined that the benefits of designation of critical habitat outweigh the benefits of excluding those areas currently designated by the State of Alaska as refuges, sanctuaries, and critical habitat areas from this designation.

Comment 47: NMFS can exclude areas to preserve partnerships and existing protections if the designation risks losing important protection for beluga whales.

Response: The ESA requires that the designation process take into consideration the economic impact "and any other relevant impact" of specifying an area as critical habitat, but neither the ESA nor the implementing regulations provide clarity on the provisions for the Secretary of Commerce to exclude from designation any areas for which the benefits of exclusion outweigh the benefits from designation. We are not entirely clear as to what is meant by the comment's reference to critical habitat designation posing risks to existing protective measures. Nonetheless, we believe that the designation will result in an increase in protection or conservation measures.

Comment 48: Electric energy for the Anchorage area is supplied by undersea cables from a generating plant near Beluga, Alaska. The cable field and overlying waters should be excluded from critical habitat as any delays in maintenance or repairs would present significant economic costs and threat to the reliability of the region's electrical system. The possible requirement to stop water operations if a whale is sighted closer than 2,000 feet would have very negative impacts on cable laying. Similarly, barge operations in support of power generation could be negatively impacted by this designation, and these barge landing areas should also be excluded.

Response: After preparing an economic impact analysis and considering those economic impacts and the ones raised in public comments on the proposed rule, we have determined that the benefits of exclusion do not outweigh the benefits of including any particular area. The economic analysis assesses power generation projects and general commercial activities in the upper Inlet. Thus, we believe the findings in the economic analysis are applicable to this

comment. Whenever practicable, the analysis sought to identify the incremental costs unique to critical habitat designation. The analysis found that the impacts from a designation decision will often be co-extensive with the ones from the listing decision. That is, in many instances, costs arising from the need to consult because of the potential to destroy or adversely modify critical habitat will be co-extensive with the costs arising from the need to consult because of the potential to jeopardize the species.

In the specific example the commenter provides (stopping operations when a whale was near the work boat), consultation costs would be entirely attributable to ESA jeopardy considerations stemming from the listing, not critical habitat designation, because the hypothetical scenario involves the direct interaction between a whale and the work activity referenced (i.e., a potential "take"). This interaction is, in no way, influenced by the designation of critical habitat. In other instances, for example, actively laying submarine cable in Cook Inlet, the incremental cost of evaluating the potential of a proposed action to "destroy or adversely modify" critical habitat during a consultation would be largely indistinguishable from the costs attributable to evaluating that activity's potential to jeopardize the species.

Moreover, the commenter provided no specific information indicating that this work would even require Federal authorization, permits, or funding (i.e., Federal action). Absent a Federal action, the critical habitat designation would not impose section 7 consultation obligations on the commenter's hypothetical activity. We are aware of no Federal permit requirements to maintain or repair submarine cable, or to operate a barge. Based upon the information provided, we did not find a compelling reason to exclude these areas from critical habitat.

Comment 49: NMFS has not presented sufficient information to justify the inclusion of the lower Inlet areas as critical habitat. Hobbs et al. (2005) is cited as describing dive behavior in winter, yet no such data are reported in that paper. Winter behavior and habitat use may differ from that of summer months, and NMFS habitat models are primarily based on observations during June.

Response: The Proposed Rule incorrectly referenced Hobbs et al. in describing dive behavior; that paper did not include analysis of dive patterns. That work did, however, establish the distribution of tagged beluga whales during winter months as including offshore waters of the mid Inlet which are consistently deeper than those areas typically occupied by whales during the summer. At this time, we do not have a complete understanding of the specific attributes that support winter beluga habitat within Cook Inlet. Because we are required to consider the best scientific data available in designating critical habitat, we reviewed non-systematic sighting reports from State and private sources, aerial surveys of winter beluga distribution, and TEK in assessing the value of the lower Inlet as critical habitat. Also, we believe the use of the southwest Inlet during late summer and fall may be an extension of the feeding behavior (and distribution) which occurs in the upper Inlet as whales move south to take advantage of late spawning returns of coho salmon. This habitat use and behavior would support the use of the results in Goetz et al. (2007) as descriptive of habitat values in the southwest Inlet. While there is some evidence that beluga whales may be overwintering in an offshore area south of Kalgin Island, these areas were not included as critical habitat because we felt information was not adequate to describe this use or identify any essential features.

Comments for Inclusion

We received many comments recommending additional areas be included in the critical habitat designation. These include all of Cook Inlet, corridors connecting habitat areas, upper and lower Cook Inlet, historically-used areas, Iniskin Bay, the mouths of tributary streams entering the Inlet, the Eagle River Flats firing range, the POA, and Hudson Bay near Churchill, Canada. We have considered all such comments and respond below to the significant issues they raise.

Comment 50: The critical habitat should include important feeding areas at the mouths of the Matanuska River, Knik River, and Cottonwood Creek.

Response: The described boundaries for this critical habitat generally include areas such as these. While there is often a poorly-defined division between Cook Inlet and a tributary stream or river, our proposed river boundaries would extend critical habitat into the lower reaches of many streams. Tidal influence may extend a considerable distance up these tributary waters, but represents areas in which we have very few observations or reports of belugas. We identified several waters where beluga whales are known or suspected to utilize such up-river areas for feeding, and specifically extend critical habitat into these reaches.

Comment 51: Critical habitat must include the habitat of prey species of beluga whales, such as the Susitna River system and other waters above tidal influence.

Response: The ESA requires that critical habitat be located within the geographic area occupied by a species, or within specific areas outside of occupied habitat determined to be essential to the conservation of the species. The areas described are outside the geographic areas occupied by the species at the time of its listed, and in light of the areas we are designating and the best scientific data available, we have determined that the unoccupied areas are not essential to the whale's conservation. We agree that habitat for prey species such as salmon and eulachon

is a necessary component to their existence in the wild, but we do not have adequate scientific information to identify specific areas that would be essential to the conservation of these beluga whales with respect to habitat values of prey species.

Comment 52: Critical habitat boundaries should be extended to incorporate all of the described range of these whales. Both the nearshore and offshore areas of lower Cook Inlet should be designated as critical habitat.

Response: We carefully considered designation of these areas as critical habitat, but we did not find sufficient justification to do so. These areas have been used by beluga whales in the past, during periods in which their abundance was much higher than today, and beluga whales are still observed in these areas. However, both the current and historical accounts of beluga whales in these areas do not indicate they supported important numbers/concentrations of whales, or that they served important habitat functions. Existing habitat models describe open water values that are likely very important attributes to feeding and, perhaps, calving habitat needs and preference. Such modeling does not indicate high habitat values are present in the areas in the lower Inlet that are not included in the designation. We acknowledge more information is needed to understand the winter habitat needs of the Cook Inlet belugas, and that other areas may be found to be important as new data arrive. But presently, we do not find sufficient support for inclusion of these areas.

Comments to Extend Public Comment

Comment 53: NMFS received several comments and requests to extend or re-open the comment period for this action, or to conduct additional hearings in the State.

Response: On consideration, we believe the public process, which has included the publication of an Advance Notice of Proposed Rulemaking with a 30-day public comment period

(74 FR 17131; April 14, 2009), publication of a proposed rule with 60-day public comment period (74 FR 63080; December 2, 2009), a 30-day extension of the comment period for the proposed rule, and four public hearings held in the major population centers in the Cook Inlet region (Kenai, Soldotna, Wasilla, and Anchorage), was sufficient and proper. Therefore, we have determined not to extend or re-open the comment period, or to hold additional hearings for this final rulemaking.

Comments on the Need to Designate Critical Habitat

Comment 54: Designation of critical habitat was unnecessary, and will not add any meaningful protection to these whales. The regulations at 50 CFR 424.12 provide that critical habitat may not be prudent, and therefore would not be designated, when that designation would not be beneficial to the species. The consultation provisions of the ESA provide reasonable protection to these whales under the jeopardy standard. NMFS has used circular logic in saying the benefit of designating critical habitat is that it will require (Federal agencies) to ensure their actions do not destroy or adversely modify critical habitat. The remaining functional benefit of public education and outreach would be more effectively met through a dedicated public education program rather than the less direct means of designating critical habitat.

Response: We disagree. The ESA provides that critical habitat shall be designated "to the maximum extent prudent and determinable." 16 U.S.C. 1533(a)(3)(A). The ESA does not define "prudent." NMFS/USFWS regulations, however, provide that a designation of critical habitat is not prudent when the “designation of critical habitat would not be beneficial to the species." 50 CFR 424.12(a)(1)(ii). This means that in the rare situation where there is zero benefit from designation, we need not designate. If there is any benefit, we must designate. Congress intended that in most situations the Secretary will designate critical habitat at the same

time that a species is listed as either endangered or threatened. It is only in rare circumstances where the specification of critical habitat concurrently with the listing would not be beneficial to the species. See H.R.Rep. No. 95-1625 at 17 (1978), reprinted in 1978 U.S.C.C.A.N. 9453, 9467. See also Enos v. Marsh, 769 F.2d 1363, 1371 (9th Cir.1985) (holding that the Secretary "may only fail to designate a critical habitat under rare circumstances"); Northern Spotted Owl v. Lujan, 758 F.Supp. 621, 626 (W.D.Wash.1991) ("This legislative history leaves little room for doubt regarding the intent of Congress: The designation of critical habitat is to coincide with the final listing decision absent extraordinary circumstances.").

In short, if there will be any benefit from the designation, we must designate. Even if many consultations will occur because of the combined potentialities that proposed Federal actions will adversely modify critical habitat and jeopardize the species, if some will occur only because of the potential for adverse modification, there still is benefit to the species (see response to comment 54). Further, courts have recognized benefits beyond the need to consult. See Conservation Council for Haw. v. Babbitt, 2 F.Supp.2d 1280, 1288 (D. Haw. 1998) (substantively, the designation establishes a uniform protection plan prior to consultation, and procedurally, the designation educates the public as well as state and local governments, and affords them the opportunity to participate in the designation). We do not believe this situation is the rare one allowing us to avoid the ESA's strong mandate to designate critical habitat.

As for the arguments that the Marine Mammal Protection Act (MMPA) protection is enough, critical habitat must be designated regardless of whether other laws or provisions arguably provide adequate protection. See Natural Resources Defense Council v. U.S. Dep't of the Interior, 113 F.3d 1121, 1127 (9th Cir. 1991) ("Neither the Act nor the implementing regulations sanctions nondesignation of habitat when designation would be merely less

beneficial to the species than another type of protection"). Lastly, while the term "take" includes harm, and USFWS' definition of harm includes habitat modification, it applies only when such modification "actually kills or injures" the species (50 CFR 17.3). Under section 7 of the ESA, we may find that an action will adversely modify critical habitat and propose reasonable and prudent alternatives without having to also make the higher evidentiary determination that the adverse modification will kill or directly injure the species.

Legal and Regulatory Comments

Comment 55: Existing State and Federal regulation and associated mitigation measures are adequate to protect Cook Inlet beluga whales and the critical habitat designation is not necessary. One commenter also asserts that NMFS has disregarded the information it submitted concerning existing laws and regulations that protect Cook Inlet beluga whales and their habitat. One commenter also asserts that there is no evidence that a lack of effectiveness of any of the management regimes in place in Cook Inlet or that any management or regulatory gap contributed to the endangered listing of Cook Inlet beluga whales or limits its recovery.

Response: The ESA defines critical habitat, in part, as “the specific areas…on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.” 16 U.S.C. section 1532(5)(A)(i). The phrase “may require” indicates that critical habitat includes features that may now, or at some point in the future, be in need of special management considerations or protection.

As explained in the proposed rule, we determined that each PCE may require special management considerations or protection. The commenter is correct that certain laws and regulatory regimes already protect, to different degrees and for various purposes, the waters of

Cook Inlet and, therefore, to a certain extent, the physical or biological features identified as essential to the conservation of the species. The fact that there are relevant state and Federal regulations which aim to protect these waters and features from a variety of sources and actions indicates that each feature currently is in need of special management considerations or protection. The existing laws and regulations do not, however, ensure that current and proposed actions will not adversely modify or destroy beluga whale critical habitat in Cook Inlet. It is therefore probable, if not likely, that the PCEs essential to the conservation of the Cook Inlet beluga whale will require special management considerations or protection in the future. The consultation process is one mechanism through which we can ensure that those features are afforded such consideration or protection.

With regard to the comment that we disregarded information submitted on existing laws and regulations, we disagree with the commenter because we have considered this information in the proposed rule and in this final rule. Finally, with regard to the comment about whether the lack of effectiveness of any of the current management regimes contributed to the endangered listing, the designation of critical habitat for any listed species does not necessarily indicate that existing laws are responsible for the species' decline. Similarly, the fact that there are existing laws that protect different aspects of a listed species' critical habitat does not, per se, preclude the designation of critical habitat. The inquiry is whether there are physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. Congress envisioned that, except in extraordinary circumstances, the Secretary would designate critical habitat. There are no extraordinary circumstances that would allow us to avoid the designation of critical habitat for the Cook Inlet beluga whale.

Comment 56: The critical habitat designation should not be finalized until pending legal rulings on the status of the Cook Inlet beluga whales are made.

Response: We disagree. The ESA requires us to designate critical habitat concurrently with the listing decision to the maximum extent prudent and determinable (16 U.S.C. 1533(a)(3)(A)(i)). If such designation is not determinable, we may extend the deadline by one year. In the extraordinary situation where the designation of critical habitat is not prudent, we may decide not to do so. See response to comment 54 above. Section 424.12(a)(1) of 50 CFR presents two circumstances when a designation is not prudent, but neither one is applicable here. Accordingly, whichever "pending legal rulings on the status of Cook Inlet beluga whales" the commenter is referring to, they do not constitute cognizable grounds under the ESA for delaying the designation of critical habitat. If the State of Alaska prevails in its lawsuit challenging our decision to list the Cook Inlet beluga whale, we will determine at that time what effect such a ruling has on this final rule.

Comment 57: Because NMFS has not yet complied with all of the applicable directives, such as the National Environmental Policy Act, Executive Order 13211, and Public Law 108-199, the proposed rule is unlawful.

Response: We disagree. We have complied with Executive Orders 13211 and 13175, as modified by Public Law 108-199 (74 FR 63,080, 63,093-94; Dec. 2, 2009). NEPA does not apply to decisions to designate critical habitat. See Douglas County v. Babbitt, 48 F.3d 1495, 1501-08 (9th Cir. 1995).

Comment 58: NMFS must provide justification for the designation of critical habitat inconsistent with comments provided to it by the State of Alaska and its political sub-divisions.

Response: Section 4(i) of the ESA provides that if the Secretary issues a final regulation which is in conflict with the comments of a State agency, the Secretary must provide a written justification for his failure to adopt regulations consistent with the agency's comments. We have complied with this section by submitting a letter to the Alaska Department of Fish & Game and the Governor's Office.

Comment 59: There is a direct Federal nexus with the critical habitat designation through the Magnuson-Stevens Act to anadromous species. These anadromous species include hooligan, smelt, and salmon.

Response: We are uncertain as to what this commenter means by "direct Federal nexus with the critical habitat designation." To the extent that this commenter is referring to potential ESA section 7 consultations, we note that section 7 of the ESA requires each Federal agency, in consultation with NMFS, to ensure that "any action authorized, funded, or carried out" by the agency is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of the species' habitat (16 U.S.C. 1536(a)(2)). Our regulations provide that action "means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas" (50 CFR 402.02). Accordingly, if or when there is a Federal action that may affect a listed species or its habitat, the Federal action agency must consult with NMFS. At this time, we are unaware of any proposed Federal actions pertaining generally to hooligan, smelt, or salmon that would require consultation.

Economic Comment

Comment 60: Many comments suggest that the Draft RIR/4(b)(2)PA/IRFA did not consider changes to development projects stemming from the critical habitat designation, such as

added costs and operational and permitting delays to projects resulting from the ESA section 7 consultation process, and the attendant economic consequences. Some comments, such as those by Chugach Electric Association and ConocoPhillips, also estimated the costs associated with these modifications and delays. According to these comments, in addition to the ESA process, project delays could also be caused by environmental lawsuits, once the critical habitat is designated.

Response: The Cook Inlet beluga whale was listed as endangered in October 2008. Since the listing, all Federal agencies have had the obligation to consult with NMFS to ensure that any action authorized, funded, or carried out by them (i.e., Federal action) is not likely to jeopardize the continued existence of the species. Consultations in accordance with this obligation must be conducted in the future, regardless of whether critical habitat is designated. The statute contains timelines for section 7 consultations, and Federal agencies should plan their activities accordingly to avoid delay. Non-Federal entities that require Federal permits for development projects should also be aware of the consultation requirement, and factor the time needed for consultations into their plans and schedules. As consultations are already required under the jeopardy standard, the additional consultation standard of destruction or adverse modification of critical habitat is not anticipated to result in significant, additional project delays. With respect to project modifications, there presently is no detailed empirical information (e.g., engineering, materials, and structural design; project scheduling, temporal sequencing of construction, and duration; associated costs and financing) pertaining to future projects or any project modifications that might be proposed for areas within or immediately adjacent to Cook Inlet beluga whale critical habitat, making quantitative estimation of directly attributable economic costs purely speculative. In other words, since the precise nature of any future project

modification is unknown, we cannot speculate whether such a potential modification ultimately increases or decreases project costs and by how much. Qualitatively, based on past experience and the best scientific and commercial data available, we do not expect project modifications to add significant monetary costs, especially since most of these modifications would likely be required pursuant to consultations arising under the jeopardy standard.

Finally, whether any project is delayed because of a lawsuit will depend on whether a court determines that NMFS has violated Federal law and injunctive relief is appropriate. Costs associated with project delays due to such lawsuits are extremely speculative.

Comment 61: A comment by ConocoPhillips asserts that a critical habitat designation will result in increased administrative costs to the company, and has the potential to result in operational and permitting delays and/or lead to other new costs. The independent economic analysis conducted by the company conservatively estimates the impacts to ConocoPhillips alone in the range of $698,000 to $796,000 over 20 years. According to the company, these costs could rapidly escalate, if NMFS imposed even minor restrictions on ConocoPhillips' operations in connection with the critical habitat designation.

Response: See response to comment 60.

Comment 62: Some comments request the exclusion of the POA and Port Mackenzie from the final critical habitat designation, based on national security, as well as economic reasons.

Response: After considering impacts to national security and weighing the benefits of exclusion with those of specifying as critical habitat the POA and a small, adjacent area extending to the turning basin, we have determined to exclude those areas from the critical habitat designation. The exclusion does not, however, include Port Mackenzie. We have

determined that its inclusion as critical habitat does not implicate significant impacts to national security, supported by the fact that DOD has not asserted that there would be any. After considering the economic impacts of the designation, we determined that the benefits of excluding Port Mackenzie do not outweigh the benefits of specifying the area as critical habitat. The decision to exclude the POA is based principally on impacts to national security, which have been described in this rule and were identified in comments responding directly to our public notice requesting information on this issue. See detailed discussion below.

Comment 63: A number of comments assert that, contrary to some perspectives in Alaska, the critical habitat designation will not hamper responsible development. Based on tens of thousands of reviews across the nation on development projects in areas containing endangered species, less than one percent of projects are significantly curtailed, because responsible development and endangered species protection can and do go hand in hand. The vast majority of projects entering the consultation process are resolved informally with a determination that no listed species will be impacted, nor designated critical habitat destroyed or adversely modified. Even where a formal consultation is required in instances of an identified potential threat, the agencies more often than not conclude that no such threat exists, or work with the action agency to design project alternatives. Only in extremely rare instances are projects terminated because of probable impacts on listed species.

The comments further state that critical habitat designation does not affect private activities that do not require Federal permits. Nor is it undertaken in a vacuum: Federal agencies are already required to consult under section 7 of the ESA if their action could jeopardize the continued existence of an endangered or threatened species. Critical habitat designation simply adds another question for the agency to consider as part of the consultation: whether the Federal

agency action could result in the destruction or adverse modification of critical habitat. Any incremental cost of critical habitat designation is, therefore, small and limited.

Response: We agree with the commenters. The economic analysis conducted in support of the Final RIR/4(b)(2)PA/FRFA is based on the same premise as that outlined in these comments.

Comment 64: A number of comments demand a more robust economic analysis before the critical habitat designation is finalized. Further, these comments expressed concern with the methodology used to estimate the cost of the proposed designation. According to these comments, the current analysis is inadequate and a more comprehensive economic analysis needs to be conducted.

Response: The economic analysis conducted in support of the Final RIR/4(b)(2)PA/FRFA employed the appropriate methods and used the best scientific data available to consider all relevant economic impacts and develop cost and benefit estimates. As required under the ESA, Regulatory Flexibility Act, Executive Order 12866, and other applicable law, the analysis considered all costs and all benefits relevant to assessing the net welfare changes attributable to the final action. These changes were monetized to the fullest extent useful estimates could be made or treated qualitatively when monetization was not practicable. These component welfare effects were then integrated in order to reach conclusions about the expected “net benefit to the Nation” attributable to the final critical habitat designation. While the commenters demand a more robust economic analysis, they do not provide any new or additional data. A few comments mention certain “costs” that are asserted to be incremental to the critical habitat designation. However, many of the values identified within these comments are not “economic costs,” but instead, “impact” measures (e.g., input-output multipliers) that

reflect, for example, localized commercial activity. As such, they do not represent economic benefits or economic costs, as these concepts are employed in traditional “benefit/cost” analysis. Commercial activity impacts, while important distributional indicators, are “transfers” within a National Accounting analytical framework mandated under applicable Federal law. Distributional impacts are treated separately from economic costs and benefits in the analytical documents. Those economic costs that are correctly identified in these comments would, based upon NMFS’ economic analysis, likely be incurred regardless of whether critical habitat is designated (also see response to earlier comments). Furthermore, there are fundamental and important distinctions between economic “benefits and costs” and economic “impacts.” The former are crucial in evaluating “net welfare” changes; that is, do the benefits exceed the costs, resulting in a net gain to society. Impact measures (e.g., income and employment multipliers) reflect relative economic “activity” in a specified locale, relative to a baseline condition.

The commenters have confused these crucial economic concepts. With, for example, specific reference to comments on the FRFA, the purported “costs” identified there are not relevant to the traditional cost-benefit analysis. And, with respect to the ESA, we considered the economic impacts cited in these comments, but do not believe that they change the conclusion that the benefits of exclusion (principally monetary) do not outweigh the benefits (economic, ecological, educational, biological) of specifying the areas as critical habitat.

Comment 65: A few comments point out that the proposed critical habitat area overlaps geographically with Alaska's highest human population density and its primary economic base. Yet, the economic analysis conducted in support of the Draft RIR/4(b)(2)PA/IRFA cites the added costs for evaluating future projects in the proposed critical habitat at a mere $187,000 to $571,000.

Response: Some commenters have expressed concern about the designation of critical habitat in areas of high population density and human activities. The concerns are related to the perceived potential economic costs that may be imposed by critical habitat designation. The Final RIR/4(b)(2)PA/FRFA concludes that the economic cost of critical habitat designation that can be reasonably "monetized," at present, is estimated to have a discounted net present value of approximately $187,000 to $571,000, assuming a 3 percent real discount rate and 10-year planning horizon; and about $157,000 to $472,000, using a 7 percent real discount rate and 10-year period. "Applicants" associated with section 7 consultations on the various activities that could be potentially impacted are only expected to bear $900 to $3,500 per consultation in administrative costs related to the incremental costs of critical habitat designation for formal consultations, while they are not responsible for any incremental costs related to informal consultation. It is important to recall that section 7(a)(2) of the ESA applies only to Federal actions (i.e., actions authorized, funded, or carried out by a Federal agency). Absent such Federal action, activities undertaken in or adjacent to Cook Inlet are not subject to the provisions of section 7 consultation on critical habitat and will incur no attributable or quantifiable costs or other encumbrances due to the designation of critical habitat. Even for proposed Federal actions, "applicants" associated with consultations on activities such as oil and gas exploration and development, power projects, mining, water quality, port expansion and development, transportation and other infrastructure projects are not expected to bear any significant costs uniquely attributable (i.e., incremental) to the designation of critical habitat for the Cook Inlet beluga whale. Every Federal agency must consult under section 7 of the ESA to ensure that its action will not jeopardize the continued existence of the whale. Formal consultation is required if the proposed action "may affect" the whale (50 CFR 402.14(a)). Whether the consultation may

proceed informally, as opposed to formal consultation, will depend on whether the action is likely to adversely affect the species (50 CFR 402.14(b)).

Comment 66: Some commenters point out that the period employed for the analysis, 2009 to 2018, may be insufficient, particularly when dealing with significant resource and community infrastructure operations and development. Firms in these industrial sectors must balance disparate time horizons for capital life, field life, field extension, and field depletion rates that are rarely as short as 10 years.

Response: As mentioned in Section 3.4 of the Final RIR/4(b)(2)PA/FRFA, an interval of 10 years is widely employed in the policy analysis arena. This time-frame allows sufficient scope over which longer-cycle trends may be observed (e.g., progress towards population recovery for the Cook Inlet beluga whale), yet is short enough to allow "reasonable" projections of changes in use patterns in an area, as well as shifts in exogenous factors (e.g., world supply and demand for petroleum, U.S. inflation rate trends) that may be influential.

Comment 67: An independent study commissioned by the Resource Development Council (RDC) asserts that the Cook Inlet beluga whale critical habitat designation has the potential to result in economic impacts on RDC's members ranging from $39.9 million and $399 million, annually. Over a 10-year period (the length of time utilized by the Draft RIR/4(b)(2)PA/IRFA) the present value of that lost production at a three percent discount rate is claimed to be $340.3 million to $3.4 billion, and at a seven percent discount rate is $280.2 million to $2.8 billion. These numbers are asserted to be conservative and do not take into account, for example, the $400 million-$600 million that the Anchorage Water and Wastewater Utility (AWWU) may be required to spend to upgrade its facilities. According to RDC, even the most conservative estimate of $280.2 million over 10 years, representing an impact of only a one

percent reduction in Cook Inlet region output, is sufficiently significant to warrant broad exclusions.

Response: The independent study commissioned by RDC considers potential "impacts" of the proposed critical habitat designation to five key industries: oil and gas, mining, POA, commercial fishing, and sport fishing. Further, qualitative discussions of impacts on other projects/sectors/entities are also provided, though not quantified. These include tourism, Knik Arm Bridge and Toll Authority, community development projects, Anchorage Water and Wastewater Authority (AWWU) discharges, Port McKenzie, vessel traffic, and energy infrastructure.

We reviewed and considered this report. While the RDC's Economic Analysis states that it "monetizes, quantifies, or qualitatively assesses the incremental costs and benefits to entities directly attributable to the CHD," it is unclear if the analysis excludes the conservation measures already underway or which may be taken due to the listing of the Cook Inlet beluga whale. Economic impacts from these measures are not attributable to the designation of critical habitat. Further, given the time periods when most of the six studies relied upon in the RDC Economic Analysis for identifying the range of reductions were conducted, the impacts identified are likely co-extensive, not incremental. Therefore, the RDC Economic Analysis appears to significantly over-estimate the economic costs that are attributable to the designation of critical habitat.

In terms of specific study outcomes, the impacts to mining in the RDC Economic Analysis are based on the premise that both the Chuitna Coal Project and the Pebble Project will likely be completed. While this may be true for the Chuitna Coal Project, the Pebble Mine project is in the planning/pre-permitting/pre-development stage, and does not have an approved project description. At this time, there is reasonable uncertainty regarding the likelihood of this

project (Pebble Project) occurring at all, let alone within the next 10 years. Also, many AWWU facilities may be required to upgrade for Clean Water Act (CWA) compliance, regardless of the designation of critical habitat for the Cook Inlet beluga whale. These costs, if incurred, are not attributable to the critical habitat designation.

As noted in response to a previous comment, the misunderstanding and resulting confounding of fundamental concepts of “economic costs and benefits” with “measures of economic activity” (e.g., employment multipliers) has led the commenters to derive vastly inflated projections of the attributable “economic costs” of critical habitat designation. Input/output multipliers do not reflect, and are not equivalent to, economic costs or economic benefits. They are correctly interpreted as location-specific “activity measures” reflecting the rate of turnover and the path of exchange, for example, of a dollar created within the identified economic unit (e.g., county, region, state), before it leaks out into the wider economy. Emphasizing that such relative economic activity impacts are not relevant to the assessment of “net benefits to the Nation,” we did describe and evaluate the temporal and geographical impacts that may accrue to localized economic activity, to the extent practicable.

Comment 68: One commenter has provided suggestions to improve the presentation of results in the Draft RIR/4(b)(2)PA/IRFA as follows:

Regarding the analysis of costs, the overriding conclusion from the [economic] analysis is that impacts on the private sector will be minimal. This point should be highlighted and the public sector costs should be clarified. In particular, Table 7.1 outlining the total costs (all based on "consultation" costs) is misleading. The numbers indicated are for a 10-year period total and that should be represented in the table itself.

Footnote 374 is crucial to the analysis and yet unfortunately is buried. It should be part of the main text. The only discount rate is 3 percent as the "social discount rate," because this is a public/social policy choice. This is accepted practice in the economics profession. If total costs are averaged over the 10-year period, they only come out to between $18,700 to $57,000 per year.

In Section 7 of the Draft RIR/4(b)(2)PA/IRFA, there is no statement of the methods used to calculate costs. Once more, these are national averages only.

Response: We appreciate the suggested improvements, and considered them when we completed the Final RIR/4(b)(2)PA/FRFA.

Comment 69: A handful of comments assert that lost development opportunities resulting from the critical habitat designation will result in declines in both State and local tax revenue, and reduce the number of jobs. An example cited is that of Alaska's already struggling oil and gas operations, where hundreds of oil field workers and professionals have been laid off in recent months. The comment asserts that critical habitat designation will have a further crippling effect on such industries.

Response: As stated in more detail in response to an earlier comment and in the Final RIR/4(b)(2)PA/FRFA, the designation of critical habitat is not anticipated to hamper development in the vicinity of Cook Inlet, and thus would not result in declines in State and local tax revenues nor lost jobs. The additional costs incurred by industry that can be reasonably monetized at present and are uniquely attributable to the critical habitat designation, would be the negligible third party costs of section 7 consultations (i.e., $900 to $3,500 per consultation in administrative costs related to the incremental costs of critical habitat designation for formal consultations; no costs to industry are incurred for informal consultations). The project

modifications and associated costs that may be requested, expressly due to consultation over potential destruction or adverse modification of critical habitat, are anticipated to be minimal and rare, given that most of any such modifications would already be required under ESA section 7's jeopardy standard. Moreover, the nature of any such modification is speculative and, as a result, whether the modification ultimately increases or decreases project costs (and, by how much) cannot be determined at this time.

Comment 70: Comments by the Chugach Electric Association, Inc. and the Resource Development Council of Alaska, Inc. point out that the Draft RIR/4(b)(2)PA/IRFA does not mention the existing high voltage submarine cable fields that cross Knik Arm, connecting the Anchorage area, as well as the Kenai Peninsula, to Chugach's existing generation plant near the Beluga gas fields. These cables must be maintained and occasionally replaced. Chugach spelled out for NMFS the potential economic impact of any delays in maintaining and repairing those cables, explaining that these delay-related costs are in addition to any administrative costs associated with ESA consultation, and any increased costs incurred by Chugach in altering its projects to benefit the whales.

Response: As discussed in more detail in response to previous comments regarding exclusion of cable fields and overlaying waters from the critical habitat designation, we are not aware of any Federal actions in connection with the maintenance or repair of submarine cables, and the commenters have not indicated the existence of such Federal action. Therefore, absent Federal action, the proposed critical habitat designation would impose no compliance requirements (e.g., no delays, direct or indirect costs) on maintaining, repairing, or occasionally replacing submarine cables in Cook Inlet.

Comment 71: One comment states that while the Draft RIR/4(b)(2)PA/IRFA analyzed cost impacts of critical habitat designation for two other tidal energy projects, it should be revised to include the potential costs of critical habitat designation to the Turnagain Arm Tidal Energy Generation project, as well. The Turnagain Arm Tidal Energy Corporation filed an application with the Federal Energy Regulatory Commission (FERC) on November 17, 2009, for a preliminary permit to study the feasibility of a tidal energy generation system on the Turnagain Arm of Cook Inlet.

Response: The Final RIR/4(b)(2)PA/FRFA analyzed economic impacts of critical habitat designation on projects that are reasonably likely to occur during the 10-year period of analysis. In November 2009, the Turnagain Arm Tidal Energy Corporation filed for a preliminary permit pursuant to section 4(f) of the Federal Power Act, proposing to study the feasibility of the Turnagain Arm Tidal Energy Generation project. According to the December 4, 2009, Federal Register document, "the sole purpose of a preliminary permit, if issued, is to grant the permit holder priority to file a license application during the permit term. A preliminary permit does not authorize the permit holder to perform any land disturbing activities or otherwise enter upon lands or water owned by others without the owners' express permission." Therefore, while it appears from the proposed project description that the project, if approved, may affect the whale's critical habitat, the project is still sufficiently ill-defined, presumably undergoing design and feasibility assessments, that further progress towards development and submission of the next series of applications remain in pre-permitting stages. Absent more definitive design, siting, and construction information, it would be impossible to do more than offer uninformed speculation on the interaction, if any, between this potential development and designated critical habitat and whether the project may also affect the whale, requiring a consultation under section

7 due to the listing of the whale as an endangered species. As such, it is not considered among the impacts contained in the Final RIR/4(b)(2)PA/FRFA's analysis.

Comment 72: One comment states that Section 7.7 of the Draft RIR/4(b)(2)PA/IRFA did not analyze the Mt. Spur Geothermal Power Plant because a decision to go forward with the plant has not been made. Further, Table 6-28 of the Draft RIR/4(b)(2)PA/IRFA describes the status of the project as "pre-decisional, geothermal lease in place, no permits have been requested." The comment further states that given Ormat Technologies' (the major lease holder for the Mt. Spur Geothermal development) better record of success than any of the tidal energy companies whose projects were analyzed in the Draft RIR/4(b)(2)PA/IRFA, Section 7.7 should be revised to include the potential costs of critical habitat designation to the project.

Response: As per Sections 6.4.7 and 7.7 of the Final RIR/4(b)(2)PA/FRFA, based on the best scientific data available and research conducted by NMFS, Ormat Technologies is in the early development/initial exploration stage of the Mt. Spurr Geothermal Power Plant, and no permits have been requested. Additionally, given that no specific preferred plan or route for the transmission line(s) have been identified, it is unclear whether this potential project may affect the Cook Inlet beluga whale and/or its critical habitat. In light of the fact that Ormat Technologies will have to submit a site design and transmission line corridor proposal, apply for and get the necessary permits, and secure funding to develop this project, any analysis of economic impacts to the potential project arising exclusively from the designation of critical habitat would be highly speculative.

Comment 73: A commenter notes that Section 6.4.7 of the Draft RIR/4(b)(2)PA/IRFA states that the Chakachamna Hydropower Plant project was reviewed, but determined to not have a connection with the critical habitat designation, due to its inland location and lack of physical

connection with Cook Inlet. However, the project description clearly describes the project's planned measures to protect salmon, which are designated as a PCE of the critical habitat. The project would discharge water flow from the facility into the MacArthur River near its confluence with Cook Inlet. The power transmission lines may need to cross the MacArthur River, and potentially Cook Inlet, to reach Anchorage or the Kenai Peninsula. Chakachamna Power has identified the North Forelands Dock and Industrial Area as its logistics base for construction and operation of this project, which would result in an increase in vessel traffic through this area. A preliminary permit application for this project was filed with FERC on December 10, 2009. Because this project may affect a small portion of Cook Inlet beluga whales' habitat, but is highly unlikely to jeopardize the existence of the whales, project modification costs should be estimated. Section 7.7 of the Draft RIR/4(b)(2)PA/IRFA should be revised to include the potential costs of critical habitat designation to the Chakachamna Hydropower Plant project.

Response: Based on the project description provided in the preliminary permit application for this project, filed with the Federal Energy Regulatory Commission (FERC) on December 10, 2009, the Chakachamna Hydropower Plant project is located inland of Cook Inlet, including the proposed transmission lines that would connect to the Chugach Electric Association's Beluga substation, which is also inland of Cook Inlet. The commenter has not provided any supporting information or empirical documentation to indicate a clear physical connection of the project with the waters of Cook Inlet, the beluga whale, or its critical habitat. If, as the commenter asserts, the North Forelands Dock and Industrial Area is proposed as the construction staging site and permit authorizations are sought for that activity, a section 7 consultation may be required. Given currently available information, however, no conclusive

determination can be made; thus, the potential economic impact to the potential Chakachamna Hydropower Plant project is not analyzed in the Final RIR/4(b)(2)PAFIRFA.

Comment 74: One comment by Chugach Electric Association notes that the Draft RIR/4(b)(2)PA/IRFA acknowledges NMFS' obligation under Executive Order 13211, regarding "Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use," to evaluate the impact of critical habitat designation on energy supply. However, the Draft RIR/4(b)(2)PA/IRFA appears to be devoid of any such analysis.

Response: Section 10.2 of the Final RIR/4(b)(2)PA/FRFA presents the "Statement of Energy Effects" pursuant to Executive Order No. 13211, "Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use," issued May 18, 2001.

Comment 75: Two comments state that the proposed designation of critical habitat to protect beluga whales in the Cook Inlet does not describe the economic impacts of the designation on the North Slope to Lower 48 through Canada gas pipeline project (also referred to as Alaska natural gas transportation project), nor how impacts of the designation on the economic, environmental, energy, and national security interests of the nation, relative to this project, which Congress has endorsed, were taken into consideration and balanced in accordance with Section 4 of the ESA.

Response: Research conducted by NMFS through the development of the Final RIR/4(b)(2)PA/FRFA revealed that the proposed North Slope to Lower 48 through Canada gas pipeline project, if permitted, would not affect the Cook Inlet beluga whales' critical habitat. No new information or empirical documentation has been provided by the commenter with which to evaluate how the project would impact the critical habitat or vice versa.

Comment 76: A commenter notes that the Draft RIR/4(b)(2)PA/IRFA should analyze the Alaska Natural Gas Development Authority (ANGDA) spur pipeline to Cook Inlet. ANGDA is planning a $2 billion pipeline to divert a portion of the gas from the North Slope to Lower 48 through Canada pipeline project to Cook Inlet, to replace dwindling local reserves and provide processed natural gas liquids for export from a to-be-developed facility, through Cook Inlet. This pipeline would run from Delta, through Glennallen, to the Beluga gas facility near Wasilla.

Response: Section 6.4.1 of the Final RIR/4(b)(2)PA/FRFA discusses the subject proposed pipeline, referred to as Beluga to Fairbanks Natural Gas Pipeline Project. Potential impacts to this project are included in Table 6-28.

Comment 77: Two comments state that Escopeta Oil's Kitchen Lights Unit project to bring a jack-up rig to the Cook Inlet this spring and drill the #1 Kitchen Lights Unit well was put on hold indefinitely because of the proposed critical habitat designation for Cook Inlet beluga whale. According to the commenters, to date Escopeta Oil has spent over $20 million on the project (estimate by the second commenter is $50 million), and this proposed designation has deterred this initial investment away from Cook Inlet. If Ecopeta Oil is not allowed to drill the Kitchen Lights Unit by the Federal Government, it will lose its significant investment in Alaska, and the State of Alaska and its people will also lose a long-term supply of natural gas and the jobs and revenues created from the Kitchen Lights Unit development program. Further, should an oil and gas company desire to perform the costly proposition of drilling an offshore well in the Cook Inlet with this designation, it will have to budget millions of dollars for additional consultations, duplicative permits, delays, legal fees, and litigation - without any guarantee of drilling the first well.

Response: Section 6.4.1 and 7.1.1 and Table 6-28 of the Final RIR/4(b)(2)PA/FRFA discuss the status and impacts to Escopeta Oil's Kitchen Lights Unit. Additional research conducted by NMFS reveals that the Kitchen Lights Unit program has a history of delays due to the company not being able to fulfill several commitments required not only for technically exploring its prospects, but also for meeting the legal terms of the State of Alaska's oil and gas leases. The latest available information suggests that, as part of its agreement with the State of Alaska to hold onto its Kitchen Lights leases, Escopeta Oil has to drill an exploration well in the unit by the end of 2010. However, following the proposed designation, the company asked the State of Alaska in a December 16, 2009, letter to guarantee no Federal interference in the company's Cook Inlet oil and gas drilling activities planned for 2010 (Petroleum News, December 20, 2009). The State did not offer such a guarantee (Petroleum News, December 27, 2009). It is anticipated that, while the project's potential to affect critical habitat could trigger the section 7 consultation process and may result in project modifications, there is no evidence suggesting that the potential loss of initial investment in Cook Inlet activities by the company due to the project being put on hold is attributable to the designation. Future economic impacts may arise from the need to consult under section 7 to avoid jeopardy and/or to avoid destroying or adversely modifying critical habitat. However, the commenter did not present any evidence indicating that there would be impacts attributable only to the critical habitat designation, nor when in the future such renewed activity might be expected.

Comment 78: One commenter notes that impacts to the $4 billion Enstar bullet pipeline should be considered. The proposed pipeline would connect Alaska North Slope gas fields through Fairbanks to the Beluga gas facility. This project is competing with the ANGDA spur

line project to supply both local consumption and liquid products export. According to the commenter, Enstar is currently pursuing Alaska environmental permits for this project.

Response: Research conducted by NMFS suggests that Enstar bullet pipeline, now referred to as Alaska Stand Alone Pipeline (ASAP), is in the preliminary planning and engineering stage. The plan, initiated originally by Enstar Natural Gas, is now being coordinated by the Alaska Governor's office. The preparation of an Environmental Impact Statement has been initiated. Given that the project alternatives have not been finalized yet, it is unclear whether the pipeline itself will reach the waters of Cook Inlet; however, it is possible that some associated facilities may be located in the vicinity. Because the project is in such preliminary stages, what activities it may stimulate in Cook Inlet and how those activities would be impacted by the designation of the beluga whales' critical habitat is too speculative for consideration in the economic analysis.

Comment 79: The Tyonek Native Corporation states that impacts of the proposed critical habitat designation on the following two projects should be considered in the analysis:

The Corporation is developing plans to mine and export high quality aggregate from its North Forelands Dock and Industrial Area using the existing adjacent pier, which would require modification (see www.tyonek.com/Presentations/tnc-wci08.pdf). According to the commenter, the project would result in increased vessel traffic through this area. This project is expected to have a total construction cost of approximately $20 million.

Alaska Natural Resources to Liquids recently completed a $1.5 million preliminary feasibility study with the help of the Alaska Industrial Development and Export Authority (see www.aidea.org/PDF%20files/BelugaCTLoverview9-20-06.pdf) on the Beluga Coal to Liquids Plant. Plans call for using coal from the Chuitna coal fields to produce 80,000 barrels per day of

diesel and naphtha for U. S. West Coast markets. In addition, the facility would produce jet fuel and petrochemical feedstocks. This fuel would be shipped out of the existing North Forelands Dock, which would require modification, and result in increased vessel traffic through this area. This project is expected to have a total construction cost, including supporting infrastructure, of approximately $12 billion.

Because these projects may affect a small portion of Cook Inlet beluga whale habitat, but are highly unlikely to jeopardize the existence of the whales, project modification costs should be estimated. The Corporation has requested that Sections 6.4.2, 7-2, and 9-2-1.1 and Table 6-28 of the Draft RIR/4(b)(2)PA/IRFA be revised to include the potential cost impacts of critical habitat designation to these projects.

Response: The commenter has not provided sufficient information regarding the current stages of the projects, or the likelihood of these occurring in the next 10 years, with which to conduct an evaluation of the economic impacts on these project proposals from the designation of critical habitat. Even if the projects were reasonably likely to occur during the time period under analysis, the modification of the North Forelands Dock would require a Federal permit, likely from the U.S. Army Corps of Engineers (ACOE), which would likely trigger a section 7 consultation (possibly two – one for each project). The consultation could be formal if the dock modification requires pile driving or informal otherwise. However, the costs associated with the consultation to ensure that the project does not destroy or adversely modify critical habitat would be co-extensive with those arising from the consultation to ensure that the project does not jeopardize the whales' existence. Such consultation is required if a Federal action may affect the endangered Cook Inlet beluga whale (50 CFR 402.14).

As for the increase in vessel traffic, it would be considered an indirect, interrelated, or interdependent action under the consultation. Given that it is unclear at this point if the increase in vessel traffic associated with the projects would create enough noise to cause abandonment of habitat, the increased vessel traffic would likely raise questions concerning whether the action would result in takings of the whale. Accordingly, economic impacts associated with the consultation over that action would be co-extensive between the jeopardy and destruction/adverse modification of critical habitat standards.

Comment 80: A commenter notes that the proposed critical habitat designation is likely to have a significant impact on exploration for and production of natural gas in the Cook Inlet region, which could directly affect the cost of electricity to Chugach Electric Association's customers. Chugach generates most of its electricity from natural gas produced in the Cook Inlet region. Designating the upper half of Cook Inlet, South to below Kalgin Island, as beluga whale critical habitat sweeps in all of the existing offshore oil and gas fields in the Inlet. This is likely to have an impact on all future oil and gas exploration in the region. The Draft RIR/4(b)(2)PA/IRFA contains no meaningful discussion of the impact this will have on future oil and gas exploration and development in Cook Inlet, and no discussion of the resulting impact on the cost of electricity in the Railbelt region, where most of Alaska's population is located. These economic impacts should have been part of the Draft RIR/4(b)(2)PA/IRFA. When these costs are given their proper weight, it should be readily apparent that the potential benefits to the whales of an unfocused and overly broad critical habitat designation are outweighed by the resulting economic impacts.

Response: As has been explained in more detail in responses to other similar comments above, oil and gas exploration activities are already required to comply with ESA section 7’s

jeopardy standard due to the listing of Cook Inlet beluga whale. It is the additional economic impacts that stem from the designation of critical habitat that comprise the economic impacts of section 7 consultations analyzed pursuant to section 4(b)(2) of the ESA.

The comment suggests that future oil and gas exploration in Cook Inlet will be adversely impacted by the critical habitat designation, with resulting costs imposed on electricity users throughout the Railbelt region of Alaska, in the form of (implicitly) higher costs. We do not agree with these assertions for the following reasons. First, the incremental cost uniquely attributable to the critical habitat designation as it pertains to project review within Cook Inlet has been demonstrated to be very small. Economic impacts arising from the need to consult under section 7's jeopardy standard are not considered to be economic impacts arising from the designation of critical habitat. After review of the best scientific data available regarding the status of the beluga whale and the nature of the reasonably foreseeable Federal actions in and around Cook Inlet, we concluded that a substantial portion of the economic impacts associated with the designation of critical habitat are co-extensive with those arising from the listing decision. Second, the empirical data and commercial information (much of which is cited by numerous commenters referenced above) suggest that supplies of gas in Cook Inlet are nearing exhaustion. This conclusion is also evidenced in the marketplace by the several competing proposals to supply North Slope gas to the Cook Inlet region via pipeline. If, as asserted by the region's oil and gas industry sector representatives (see submitted comments on gas pipelines and critical habitat designation, above), tens of millions to hundreds of millions of dollars have been invested by several competing interests in efforts to build a gas delivery system to "move available gas into the Cook Inlet region" in response to dwindling local supplies, it appears that

the marketplace and nature of supply and demand are having, and will continue to have, significant economic impacts on future Cook Inlet gas exploration.

Comment 81: Several comments state that the proposed designation of the entire Cook Inlet as critical habitat for the beluga whale creates an additional stigma towards future exploration and development in the Cook Inlet region. The negative impact created by this designation creates an anti-development stigma that is contrary to the national energy policy and prejudices Alaska's ability to responsibly explore and develop its natural resources for the benefit of all Alaskans.

Potential investors may withdraw their support for projects in the Cook Inlet region because of increased project costs. The additional costs include: compliance costs, litigation costs related to suits initiated by NGOs, and perhaps the greatest of all, lost opportunity costs resulting from loss of investment. The evaluation of the economic costs of critical habitat must include a complete evaluation of these factors by independent investigators from outside the agencies involved in the listing and habitat designation process.

Response: While substantial areas of Cook Inlet are proposed for inclusion in this designation action, critical habitat does not extend to the entire inlet. Indeed, the vast majority of the lower inlet is not proposed for inclusion. We cannot speculate on "stigma" or "loss of investor interest" as no empirical evidence or analysis of such effects for Cook Inlet exists. Moreover, as our economic impact analysis indicates, most of the economic impacts on future natural resource exploration and development in Cook Inlet arising from ESA compliance requirements would exist even without the designation of critical habitat.

Comment 82: A number of commenters note that the proposed critical habitat designation may affect barge and vessel activity in Cook Inlet, resulting in impacts to their

projects. Critical habitat designations could increase costs by requiring observers on board, decrease efficiency by setting speed limits or time and area restrictions, and ultimately raise the cost of all goods, and subsequent services, paid for by Alaskans. Any shipping delays will have particularly significant consequences for this area, because shipping schedules are affected by tides, and delays are compounded by the fact that Anchorage has minimal storage capacity for goods and must carefully coordinate shipping schedules. Certain planned projects are anticipated to significantly increase vessel traffic, and commenters request these impacts be included in the Draft RIR/4(b)(2)PA/IRFA.

Response: Section 7 of the ESA does not apply generically to vessel movement or activity. As explained previously, section 7's consultation requirements apply only when there is a Federal action (actions authorized, funded, or carried out by a Federal agency). The designation of critical habitat for the Cook Inlet beluga whale is not anticipated to require any additional restrictions on barge and vessel movement, above and beyond any such restrictions already being imposed following section 7 consultations to avoid jeopardy. Generally, where a proposed Federal action will result in increases in vessel traffic, such increases are considered indirect effects or arising from interrelated or interdependent actions under section 7 consultation regulations (50 CFR 402.02). Given that it is unclear at this point if the potential increases in vessel traffic associated with projects in Cook Inlet could create enough noise to result in the abandonment of critical habitat areas, the increased vessel traffic, if it were to represent a concern, would likely be considered a take issue. Accordingly, the economic impacts from that consultation would be attributable to the listing of the whale as an endangered species.

Comment 83: Some comments suggest that in order to conform to the critical habitat designation, the Anchorage Water and Wastewater Authority (AWWU) must upgrade its sewage

treatment plant, which would cost between $400 million and $1 billion. This could potentially triple Anchorage residents' wastewater bills. Nowhere is this reflected or accounted for in the Draft RIR/4(b)(2)PA/IRFA, which is clearly contrary to the requirements of the ESA.

Response: Sections 6.4.6 and 7.6 and Table 6-28 of the Final RIR/4(b)(2)PA/FRFA describe the potential costs of the proposed critical habitat designation to AWWU. The costs that can appropriately be attributed to critical habitat designation are anticipated to stem solely from a formal section 7 consultation. It is expected that in compliance with the CWA, AWWU may be required by the Environmental Protection Agency (EPA) to upgrade its John Asplund Wastewater Treatment Plant (WWTP), to meet national waste water discharge standards. The compliance exemption for the facility has expired and EPA is currently reviewing the facility's operating permit. Therefore, any resulting cost associated with the upgrade or improvement of the plant to meet CWA mandates would not be attributable to the designation of Cook Inlet beluga whale critical habitat.

Comment 84: One comment notes that the City of Kenai operates a wastewater treatment plant at the mouth of the Kenai River. The permitted discharge is into Cook Inlet. We expect, but cannot confirm, that the City will have to comply with new effluent standards, as a result of the designation. The cost of plant upgrades could range from $250,000 to $50,000,000.

Response: The Final RIR/4(b)(2)PA/FRFA discusses the Kenai Wastewater Treatment Facility in Section 6.4.6. The facility is considered a major discharger under EPA standards. As discussed in the response to the previous comment regarding John Asplund WWTP, any required upgrades to the facility in order to comply with CWA standards would not be attributable to the critical habitat designation.

Comment 85: One commenter states that there is increasing demand for coal in Pacific Rim countries. After many years of lackluster demand in the export coal market, prospects are looking better for development of a coal export business, and Cook Inlet could play a key role in that development. Critical habitat designation in the Port Mackenzie area and for the shipping lanes through upper Cook Inlet could be a serious impediment to coal and other export opportunities. Clearly, there are many opponents to coal development, and critical habitat designation would provide them with a powerful tool to hamper and potentially stop coal and other bulk commodity exports, with no corresponding benefit to the beluga whales.

Response: As explained above, the designation of critical habitat for the Cook Inlet beluga whale is not anticipated to require any additional restrictions on barge and vessel movement in Cook Inlet, above and beyond those already being imposed following section 7 consultations to avoid jeopardy.

Comment 86: Several comments suggest that the proposed critical habitat designation could affect tourism in Southcentral Alaska. Holland America Cruise Lines is planning to bring numerous cruise ships into the POA and Homer. Future moorings by the industry could be decreased or eliminated as a result of a critical habitat designation. Subsequently, decrease in the number of visitors to Southcentral Alaska could transpire as limitations are placed on sport fishing, sightseeing cruises, and other operations. Local communities will be significantly impacted through decreased bed and rental taxes.

Response: As discussed in an earlier response, the POA is not included in the proposed critical habitat designation because of impacts to national security. Therefore, future moorings at POA are not likely to be affected by the designation of critical habitat for the Cook Inlet beluga whale.

Comment 87: A large number of comments provided both through written letters and orally during the public hearings assert they place a very great value upon, and derive substantial personal utility and enjoyment from, watching Cook Inlet beluga whales and having the opportunity to interact with the species in a wild environment. Further, some commenters made special note of the need to preserve this experience for future generations.

Response: We acknowledge these comments on the benefits accruing to area residents, tourists, and other visitors to Cook Inlet, and the value experienced by those interested in maintaining for future generations the opportunity to encounter the Cook Inlet beluga whale in its native habitat in such close proximity to a large population center. We provided an extensive treatment of the theoretical foundations, technical considerations, and empirical methodologies that have been developed and applied to quantitatively measure and evaluate economic benefits attributable to non-market use and passive-use values, as reflected in these comments. We believe that the designation of critical habitat will play a major role in ensuring the conservation of the Cook Inlet beluga whale to the benefit of current and future generations.

Comment 88: Several comments question the benefits of the proposed critical habitat designation (due to preserving the natural beauty of Cook Inlet) in attracting and retaining workers, and in adding value to visitors who recreate in the area. Concern is expressed that benefits in retaining workers are hypothetical and that Cook Inlet is one of the most pristine areas of the United States, such that workers would not reasonably be affected by the proposed critical habitat designation in their location decision. One commenter also suggested that these benefits can only be realized if there are jobs present that enable people to live and work in the Cook Inlet area.

Response: It is well documented that quality of life factors, including environmental quality and recreation opportunities, enter into employee and business location decisions (see Love and Crompton, 1999; Florida, R, 2000; Granger and Blomquist, 1999). To the extent that the proposed critical habitat designation preserves the environmental quality, natural resource amenities, and recreation opportunities in Cook Inlet, visitors and residents alike will benefit. It is not known how the incremental improvement in environmental quality, due to the proposed critical habitat designation, will affect the ability of any particular business or industry to attract and retain employees; hence, the Final RIR/4(b)(2)PA/FRFA notes that these benefits are likely to be "relatively small" and are not quantified in the analysis. Regarding job growth, recreation and tourism industries depend on aesthetic amenities, environmental quality, access to fish and wildlife (e.g., fishing, hunting, viewing, photographing), etc., and it is precisely these aspects and attributes that are expected to benefit due to the proposed critical habitat designation in Cook Inlet.

Comment 89: Several comments expressed concern about the lack of quantification of benefits of the proposed critical habitat designation. According to some comments, this leads to an overstatement of speculative or hypothetical benefits, and an arbitrary and biased conclusion that the proposed critical habitat designation results in a net benefit to the Nation. Additional concern is expressed that the net benefit finding is not replicable, and that there is no evidence or factual basis for these benefits. One comment also notes that well-being, as a measure of benefit, is ill-defined, and questions what 'goods and services' would be provided to the public due to the proposed critical habitat designation that would increase well-being. Other comments assert that, by not quantifying benefits, the analysis understates the benefits of the proposed critical habitat designation.

Response: The principal benefit of the proposed critical habitat designation is the avoidance of destruction or adverse modification of the critical habitat of the Cook Inlet beluga whale, supporting the conservation and recovery of this endangered species, as provided for under the ESA. These benefits are biological. Ancillary economic, socioeconomic, cultural, educational, and procedural benefits are also expected to accrue, associated with the designation and related preservation and possible incremental improvement of the inlet's environmental quality. Quantifying economic benefits requires identifying the net change in environmental amenities and service flows, such as air quality, water quality, or fish and wildlife populations (among others), specifically attributable to, in this instance, the proposed Cook Inlet beluga whale critical habitat designation. While the degree of biological, environmental, and economic benefit is not readily amenable to quantification, it is known that relatively small changes in environmental quality and wildlife abundance can provide significant economic benefits (also referred to as increased well-being or utility) through both use and non-use values. Evidence of these types of values is documented in the Final RIR/4(b)(2)PA/FRFA. Thus, while it is not possible to monetize, or even quantify these benefits, the best economic data available provide substantial evidence that the magnitude of anticipated benefits outweigh the anticipated costs. This is supported by the fact that we have determined, based upon the best scientific data available, the incremental cost attributable to the proposed critical habitat designation is likely small, relative to the expected benefits.

Comment 90: Several comments note that NMFS has stated it has little specific empirical information with which to predict how consultations initiated by critical habitat considerations might lead to any particular project modification, yet the stated primary benefit in the Draft RIR/4(b)(2)PA/IRFA of critical habitat is the requirement for consultations to ensure

that action agency actions do not modify or destroy critical habitat. These comments assert that NMFS has not shown how the measurable improvement would be attributable to the proposed critical habitat designation and, thus, lacks a factual basis for estimating benefits. Similarly, several comments note that it is important to distinguish the incremental benefits of the proposed critical habitat designation from the baseline benefits of listing the Cook Inlet beluga whale, as well as other existing management and regulatory requirements.

Response: The commenters are correct that we have stated that the primary benefit of critical habitat designation is the biological benefit that will accrue from consultations that result in avoiding or minimizing adverse modification or destruction of critical habitat. As stated in the Final RIR/4(b)(2)PA/FRFA, "The primary driver for benefits from [the critical habitat designation] is a potential change in the quality or condition of the critical habitat absent [the critical habitat designation]." Critical habitat designation is, fundamentally, an action to promote the conservation of the species. Ancillary economic, socioeconomic, educational, procedural, cultural, and aesthetic benefits (among others) also accrue from the critical habitat designation, contributing to the aggregate benefit measure. While the exact number of affected projects and the precise types of project modifications that may be uniquely attributable to the critical habitat designation (and not the listing of the Cook Inlet beluga whale) cannot be known, we reasonably assume that whatever modifications occur, they will contribute to the conservation of Cook Inlet beluga whales and generate biological benefits that yield associated economic value.

We agree that, in assessing the benefits arising from the designation of critical habitat, we must focus on those incremental benefits that are uniquely attributable to the designation and not to the endangered listing. Our analysis endeavored to distinguish between such incremental and co-extensive benefits.

Comment 91: Numerous comments emphasize the social and cultural importance of the beluga whale to the region, as indicated by the naming of places, such as Beluga Lake, in the region and the traditional ways that are centered on the Cook Inlet beluga whale. Several comments indicate that the dollar value of the social and cultural benefits is very high.

Response: The Final RIR/4(b)(2)PA/FRFA discusses the cultural use and passive use importance of the Cook Inlet beluga whale and notes such examples as the traditional subsistence and cultural harvesting by Alaska Native groups, the naming of places, public educational displays, numerous technical and popular books, and the utility accruing to individuals from the knowledge that Cook Inlet beluga whales persist within their natural habitat in Cook Inlet. Cultural use values are recognized as real and potentially significant benefits deriving from the proposed critical habitat designation, but have not been estimated in dollar terms, owing to the complexity, high cost, and controversy associated with estimation of such values. Cultural values have been asserted by some to be unique to each group of people and, as such, do not readily lend themselves to monetary approximation. Similarly, cultural passive use values are not quantified, as there are not appropriate studies available upon which to base rigorous, quantitative estimates.

Comment 92: A number of comments question the potential of the proposed critical habitat designation to increase fish stocks and benefit commercial and sport fisheries. Some comments cite baseline requirements to maintain the reproductive capacity of fish stocks as indicating that critical habitat will not increase stocks, while other comments note that, to the extent that critical habitat increases the Cook Inlet beluga whale population, consumption of fish by beluga whales will result in a net decrease in available fish for commercial and sport anglers. One comment also asserts that fishing will be limited in the proposed critical habitat designation

if it is found to have potential adverse effects on the environment, while other comments note that the analysis should further assess the benefits of enhanced commercial and sport fisheries attributable to the proposed critical habitat designation.

Response: As noted in the Final RIR/4(b)(2)PA/FRFA, it is possible that commercial and sport fisheries will experience small, indirect benefits attributable to the proposed critical habitat designation, as fish stocks share habitat with Cook Inlet beluga whales and benefit from avoidance of destruction or adverse modification of that (i.e., their common) habitat. Effects of the proposed critical habitat designation on fishing activity are likely to be limited, because most of the fisheries in Cook Inlet occur in state waters and are managed by the State of Alaska. Though speculative, were a Federal action to occur that implicated those fisheries, effects from their management would likely be considered in the cumulative effects section of the biological opinion (See 50 CFR 402.02). At this time, however, it is impossible to speculate as to what that Federal action would be and how the state-managed fisheries would be analyzed. As described in the Final Draft RIR/4(b)(2)PA/FRFA, it is anticipated that there will be an informal consultation, approximately every 5 years, over Federal management of Cook Inlet commercial groundfish fisheries, attributable to the designation of the beluga whales' critical habitat.

Comment 93: Several comments question the benefit of education and outreach associated with the proposed critical habitat designation, and assert that this is a baseline benefit that accrues due to the 2008 Conservation Plan for the Beluga Whale.

Response: The volume of public comments received on the Draft RIR/4(b)(2)PA/IRFA indicates the level of public awareness of this process and the potential for education and outreach benefits. Furthermore, the consultation process, itself, serves to increase awareness and sensitivity in design, execution, and operation of proposed projects.

Comment 94: Several comments note that the Alaska tourism industry, including activities such as whale watching, are important to the Alaskan economy and may benefit from the proposed critical habitat designation. These comments note that tourists are attracted to Alaska because of the scenic beauty and wildlife viewing opportunities, and protecting these assets has direct economic benefit.

Response: As noted in the Final RIR/4(b)(2)PA/FRFA, leisure activities, such as fishing, whale watching, and other wildlife viewing may be enhanced by the proposed critical habitat designation, insofar as the designation prevents or mitigates degradation, destruction, or adverse modification of critical habitat areas. While the recreation-related economic benefits of the proposed critical habitat designation are real, and potentially significant, these benefits have not been estimated in dollar terms because empirical data and relevant research are not currently available. It is reasonable to assume, nonetheless, that designation of critical habitat in Cook Inlet for the beluga whale will benefit recreation and tourism, and the businesses that depend upon and support these user groups.

Comment 95: Several comments were provided regarding the comparison of market-based, monetary estimates of economic cost, to non-market benefits measured through willingness-to-pay studies and other methods. Some comments questioned the reliability and validity of estimates of non-market values, while other comments noted that there are inherent values to the proposed critical habitat designation that are not measured in the marketplace with dollar values.

Response: Non-market valuation of species, habitats, and environmental amenities is an accepted and standard practice in the economics profession and endorsed for use by Federal agencies, when and where market prices do not exist. According to Office of Management and

Budget guidelines for economic analysis of Federal regulations under Executive Order 12866, all benefits to society should be measured in cost-benefit analyses of Federal regulations, including non-market benefits that are not traded directly in the marketplace. The Executive Order stipulates that estimation of the monetary value of goods or services indirectly traded in the marketplace (such as whale watching trips and scenic views from residential homes) should be based on willingness-to-pay valuation methodology, using actual market transactions where possible. For goods that are not traded directly or indirectly in the marketplace, the Executive Order recommends the use of contingent-valuation methods to estimate economic value. At present, no such empirical studies have been completed for the Cook Inlet beluga whale or its critical habitat. We have, however, initiated just such an analysis. Its results are not expected to be available for several years. Until that time, it must suffice to observe that non-market, non-use, and passive-use economic values represent relevant, and very often significant, aspects of the benefits deriving from Federal actions pertaining to ESA listings and critical habitat designation. These estimation techniques, such as the contingent valuation method, have been reviewed and approved by peer review scientific panels and sanctioned by Federal courts.

Comment 96: A few comments cite additional economic studies that could be used to develop value estimates of the proposed critical habitat designation, including studies from Japan, regarding the value of beluga whales, a study on the benefits of expanding California's sea otter population, and a study of the benefits of designating critical habitat for the lynx. Another comment asserted that "benefits transfer" estimation techniques can be applied to the estimation of non-market values attributable to Cook Inlet beluga whale critical habitat designation, using a value function.

Response: There are numerous peer-reviewed studies, such as those referred to in the comments, which provide estimates that provide nonmarket value of species and habitat. As discussed in Appendix A of the Final RIR/4(b)(2)PA/FRFA, we have determined that the values from these studies are not directly applicable to the Cook Inlet beluga whale, beyond confirming that non-market and passive-use values exist with respect to the designation of critical habitat for the Cook Inlet beluga whale.

There are approaches to quantitatively estimating the value of critical habitat designation, such as outlined in Kroeger (2004), a study referenced in the comments. Kroeger outlined a meta-analysis approach (which is regression analysis of several studies' results) for determining the per-acre net benefits for critical habitat conservation for lynx habitat conservation areas. Kroeger points out that generating benefit transfer estimates through meta-analysis could be error prone, if the studies used in the meta-analysis differ from the study site in perceived resource quality.

Another study recommended in the comments used a meta-analysis approach to derive the benefits to California households of an increased southern sea otter population. Based on existing valuation literature on the species (and other rare and endangered species), this study estimates the non-market benefits of the species itself. This study thus values species based on population increases, rather than habitat designation. This differs from the policy context for estimating benefits of beluga whale proposed critical habitat designation, as there are no quantitative estimates available for how the proposed critical habitat designation will affect Cook Inlet beluga whale population estimates.

Cultural values of species habitat conservation inherently differ by culture. Values derived in Japan, while an indicator of potential value, are not used in this analysis.

Comment 97: Several comments concern the assumptions regarding the current environmental conditions in Cook Inlet, or regarding the effect of the proposed critical habitat designation on environmental conditions. Specifically, some comments assert that the analysis erroneously assumes that degradation of habitat is inevitable in the absence of the proposed critical habitat designation, while others allege that the analysis mistakenly assumes that the proposed critical habitat designation will improve the quality of the natural environment in Cook Inlet, above current levels. One commenter was concerned that the analysis implies that Cook Inlet is currently polluted.

Response: The Final RIR/4(b)(2)PA/FRFA recognizes that the current state of Cook Inlet is suitable for the conservation and recovery of the species. The aim of the critical habitat designation is to bring about the conservation of the Cook Inlet beluga whale through the creation of the benefits described above. The analysis does assume that, in the absence of the designation, the risk of degradation is unacceptably high and that through consultations the risk of degradation otherwise occurring in connection with Federal actions in Cook Inlet will be reduced.

Critical Habitat

4(b)(2) of the ESA requires us to designate critical habitat for threatened and endangered species "on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat." This section also grants the Secretary of Commerce (Secretary) discretion to exclude any area from critical habitat if he determines "the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat." The

Secretary's discretion is limited, as he may not exclude areas that "will result in the extinction of the species."

The ESA defines critical habitat under section 3(5)(A) as: "(i) the specific areas within the geographical area occupied by the species, at the time it is listed..., on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed…upon a determination by the Secretary that such areas are essential for the conservation of the species."

Once critical habitat is designated, section 7 of the ESA requires Federal agencies to ensure they do not fund, authorize, or carry out any actions that will destroy or adversely modify that habitat. This requirement applies along with the section 7 requirement that Federal agencies ensure their actions do not jeopardize the continued existence of listed species.

Physical and Biological Features Essential for Conservation

ESA section 3(5)(A)(i) defines critical habitat to include those "specific areas within the geographical area occupied by the species at the time it is listed… on which are found those physical or biological features… (I) essential to the conservation of the species and (II) which may require special management considerations or protection." Joint NMFS/FWS regulations for listing endangered and threatened species and designating critical habitat at section 50 CFR 424.12(b) state that the agency "shall consider those physical and biological features that are essential to the conservation of a given species and that may require special management considerations or protection" (also referred to as "Essential Features" or "Primary Constituent Elements"). Pursuant to the regulations, such requirements include, but are not limited to, the following: (1) Space for individual and population growth, and for normal behavior; (2) food,

water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and (5) habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species. These regulations go on to emphasize that the agency shall focus on essential features within the specific areas considered for designation. These features "may include, but are not limited to, the following: roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, geological formation, vegetation type, tide, and specific soil types."

Scientific research, direct observation, and TEK indicate fish are the primary prey species of the Cook Inlet beluga whale, and that certain species are especially important. This importance may be due to feeding strategies of the whales, physical attributes of the prey (e.g., size), the caloric value of the prey, the availability of the prey, and the life-history aspects of the whales, among other considerations. Two fish species that are highly utilized by Cook Inlet beluga whales are king (Chinook) salmon and Pacific eulachon (hooligan). Both of these species are characterized as having very high fat content, returning to the upper Inlet early in the spring, and having adult (spawning) returns which occupy relatively narrow timeframes during which large concentrations of fish may be present at or near the mouths of tributary streams.

Analysis of stomach contents and research of fatty acid signatures within beluga blubber indicate the importance of other species of fishes and invertebrates to the diets of these whales. The most prominent of these are other Pacific salmon (sockeye, chum, and coho), Pacific cod, walleye pollock, saffron cod, and yellowfin sole. Beluga whales are also known to feed on a wide variety of vertebrate and invertebrate prey species. However, the aforementioned fish

species occupy a prominent role in their foraging and energetic budgets and are considered essential to the beluga whales' conservation.

NMFS research has considered the distribution of the Cook Inlet beluga whale and its correlations with behavior, habitat function, and physical parameters (Goetz et al., 2007). While these whales are highly mobile and capable of ranging over a large portion of Cook Inlet on a daily basis, in fact they commonly occupy very discrete areas of the Inlet, particularly during summer months. These areas are important feeding habitats, whose value is due to the presence of certain species of prey within the site, the numbers of prey species within the site, and the physical aspects of the site which may act to concentrate prey or otherwise facilitate feeding strategy. In upper Cook Inlet, beluga whales concentrate offshore from several important salmon streams and appear to use a feeding strategy which takes advantage of the bathymetry in the area. The channels formed by the river mouths and the shallow waters act as a funnel for salmon as they move past waiting belugas. Dense concentrations of prey may be essential to beluga whale foraging. Hazard (1988) hypothesized that beluga whales were more successful feeding in rivers where prey were concentrated than in bays where prey were dispersed. Fried et al. (1979) noted that beluga whales in Bristol Bay fed at the mouth of the Snake River, where salmon runs are smaller than in other rivers in Bristol Bay. However, the mouth of the Snake River is shallower, and hence may concentrate prey. Research on beluga whales in Bristol Bay suggests these whales preferred certain streams for feeding based on the configuration of the stream channel (Frost et al., 1983). This study theorized beluga whales' feeding efficiencies improve in relatively shallow channels where fish are confined or concentrated. Bathymetry and fish density may be more important than sheer numbers of fish in beluga whale feeding success. Although beluga whales do not always feed at the streams with the highest runs of fish,

proximity to medium to high flow river systems is also an important descriptor in assigning importance to feeding habitats. Research has found beluga whale distribution in Cook Inlet is significantly greater near mudflats and medium and high flow accumulation rivers. (These waters were categorized in Goetz et al. (2007) using a digital elevation model, similar to drainage basins. A complete list of these waters may be found on our website http://www.fakr.noaa.gov/.) Beluga whales are seldom observed near small flow tributaries.

Cook Inlet beluga whales are preyed upon by killer whales, their only known natural predator. We have received reports of killer whales throughout Cook Inlet, and have responded to several instances of predation within Turnagain Arm, near Anchorage.

Given the small population size of the Cook Inlet beluga whale, predation may have a significant effect on beluga whale recovery. In addition to directly reducing the beluga whale population, the presence of killer whales in Cook Inlet may also increase stranding events. We consider killer whale predation to be a potentially significant threat to the conservation and recovery of these whales. Beluga whales may employ several defense strategies against killer whale predation. One strategy is to retreat to shallow estuaries too shallow for the larger killer whales. These areas might also provide acoustical camouflage due to their shallow depths, silt loads, and multiple channels.

Because of their importance in the Cook Inlet beluga whales' feeding strategy, as predator escape terrain, and in providing other habitat values, we consider "mudflats," identified here as shallow and nearshore waters proximate to certain tributary streams, to a be physical feature essential to the conservation of the Cook Inlet beluga whale.

For purposes of describing and locating this feature, and after consultation with the author of the model presented in Goetz et al. (2007), we determined spatial extent of this feature

may best be described as being within the 30-foot (9.1-m) depth contour and within 5 miles (8.0 km) of medium and high flow accumulation rivers. These accumulation rivers are also waters with populations of anadromous fish that are important prey to Cook Inlet belugas.

It appears Cook Inlet beluga whales have lower levels of contaminants stored in their bodies than other populations of belugas. Because these whales occupy the most populated and developed region of the state, they must compete with various anthropogenic stressors, including pollution. These whales often occur in dense aggregations within small nearshore areas, where they are predisposed to adverse effects of pollution. Beluga whales are apex predators, occupying the upper levels of the food chain. This predisposes them to illness and injury by biomagnification of certain pollutants. Another population of beluga whales found in the Gulf of St. Lawrence in Canada is characterized by very high body burdens of contaminants. There, high levels of PCBs, DDT, Mirex, mercury, lead, and indicators of hydrocarbon exposure have been detected in beluga whales. These substances are well-known for their toxic effects on animal life and for interfering with reproduction and resistance to disease. Many of these contaminants are transferred from mother to calf through nursing.

Given present abundance levels, the impact of any additional mortalities to the extinction risk for this DPS, the sensitivity of beluga whales to certain pollutants, their trophic position and biomagnifications, the fact that large numbers of Cook Inlet beluga whales typically occupy very small habitats, and that their range includes the most populated and industrialized area of the state, we consider water quality to be an important aspect of their ecology, and essential to their conservation within both areas 1 and 2.

Cook Inlet beluga whales do not occupy an extensive range, and are not known to undertake migrations. Within their occupied range, however, these whales move freely and

continuously. The range of the Cook Inlet beluga whale is neither biologically nor physically uniform. It ranges between shallow mudflats, glacial fjords, deep waters with marine salinities, vegetated shallows of predominantly freshwaters, and areas of the upper Inlet in which heavy ice scour, extreme tidal fluctuations, high silt content, low temperatures, and high turbidity work to limit any intertidal or persistent nearshore organisms. Beluga whales have adapted here by utilizing certain areas over time and space to meet their ecological needs. While much remains to be understood of their ecology and basic life history, it is apparent a large part of their movement and distribution is associated with feeding. Feeding habitat occurs near the mouths of anadromous fish streams, coinciding with the spawning runs of returning adult salmon. These habitats may change quickly as each species of salmon, and often each particular river, is characterized as having its individual run timing. Calving habitat is poorly described, but may depend on such factors as temperatures, depths, and salinities. Predator avoidance may be a very important habitat attribute, and is likely to exist only in shallows within Turnagain and Knik Arms of the upper Inlet. Causeways, dams, and non-physical effects (e.g., noise) can interfere with whale movements. It is essential to the conservation of Cook Inlet beluga whales that they have unrestricted access within and between the critical habitat areas.

Beluga whales are known to be among the most adept users of sound of all marine mammals, using sound rather than sight for many important functions, especially in the highly turbid waters of upper Cook Inlet. Beluga whales use sound to communicate, locate prey, and navigate, and may make different sounds in response to different stimuli. Beluga whales produce high frequency sounds which they use as a type of sonar for finding and pursuing prey, and likely for navigating through ice-laden waters. In Cook Inlet, beluga whales must compete acoustically with natural and anthropogenic sounds. Man-made sources of noise in Cook Inlet

include large and small vessels, aircraft, oil and gas drilling, marine seismic surveys, pile driving, and dredging.

Anthropogenic noise above ambient levels may cause behavioral reactions in whales (harassment) or mask communication between these animals. The effects of harassment may also include abandonment of habitat. At louder levels, noise may result in temporary or permanent damage to the whales' hearing. Empirical data exist on the reaction of beluga whales to in-water noise (harassment and injury thresholds) but are lacking regarding levels that might elicit more subtle reactions such as avoiding certain areas. Noise capable of killing or injuring beluga whales, or that might cause the abandonment of important habitats, would be expected to have consequences to this DPS in terms of survival and recovery. We consider "quiet" areas in which noise levels do not interfere with important life history functions and behavior of these whales to be a necessity. Therefore, we consider the assurance of in-water noise levels that do not cause beluga whales to abandon or fail to access important critical habitat areas, such as foraging sites at river mouths, to be an essential feature. This feature is found in both areas 1 and 2.

Based on the best scientific data available of the ecology and natural history of Cook Inlet beluga whales and their conservation needs, we have determined the following physical or biological features are essential to the conservation of this species:

(1) Intertidal and subtidal waters of Cook Inlet with depths less than 30 feet (MLLW)(9.1 m) and within 5 miles (8 km) of high and medium flow anadromous fish streams.

(2) Primary prey species consisting of four species of Pacific salmon (Chinook, sockeye, chum, and coho), Pacific eulachon, Pacific cod, walleye pollock, saffron cod, and yellowfin sole.

(3) Waters free of toxins or other agents of a type and amount harmful to Cook Inlet beluga whales.

(4) Unrestricted passage within or between the critical habitat areas.

(5) Waters with in-water noise below levels resulting in the abandonment of critical habitat areas by Cook Inlet beluga whales.

One or more of these features is found or identified within the designated critical habitat.

Special Management Considerations or Protection

An occupied area may be designated as critical habitat only if it contains physical and biological features that "may require special management considerations or protection." It is important to note the term "may require special management considerations or protection" refers to the physical or biological features, rather than the area proposed as critical habitat. Neither the ESA nor NMFS regulations define the "may require" standard. We interpret it to mean that a feature may presently or in the future require special management considerations or protection. 50 CFR 424.02(j) defines "special management considerations or protection" to mean "any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species." We considered whether the PCEs indentified for Cook Inlet beluga whales may require special management considerations or protection. In our initial determination, we considered whether there is:

(a) presently a negative impact on the feature(s);

(b) a possible negative impact on the feature in the future;

(c) presently a need to manage the feature(s); or

(d) a possible need to manage the feature(s) in the future.

Intertidal and subtidal waters of Cook Inlet with depths less than 30 feet (MLLW)(9.1 m) and within 5 miles (8 km) of high and medium flow anadromous fish streams support important beluga feeding habitat because of their shallow depths and bottom structure which act to concentrate prey and aid in feeding efficiency by belugas. The physical attributes of this PCE could be modified or lost through filling, dredging, channel re-alignment, dikes, and other structures. Within navigable waters, the ACOE has jurisdiction over these actions and structures and administers a permit program under the Rivers and Harbors Act and CWA. In establishing these laws, it was the intent of the U.S. Congress to regulate and manage these activities. The CWA was created to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Section 404 of the CWA regulates the discharge of fill materials into these waters, noting concerns with regard to water supplies, shellfish beds, fishery areas, and spawning and breeding areas. The intent of Congress to protect these features indicates that they may require special management considerations or protection. Further, through the ESA section 7 consultation process, we may identify reasonable and prudent measures to minimize impacts to these features.

Four species of Pacific salmon (Chinook, sockeye, chum, and coho), Pacific eulachon, Pacific cod, walleye pollock, saffron cod, and yellowfin sole constitute the most important food sources for Cook Inlet beluga whales as identified through research and as held by the traditional wisdom and knowledge of Alaska Natives who have participated in the subsistence hunting of these whales. Stomach analysis of Cook Inlet beluga whales has found these species constitute the majority of consumed prey by weight during summer/ice free periods. All of these species are targeted by commercial fisheries, and some are prized by sport fishermen. The recognition of harm due to overexploitation and the need for continued management underlie the efforts of

the state and Federal government to conserve these species. The fisheries in State waters of Cook Inlet are managed under various management plans. In addition to commercial fisheries, State plans manage subsistence, sport, guided sport, and personal use fisheries. Federal fisheries management plans provide for sustainable fishing in Federal waters of lower Cook Inlet. These regulatory efforts indicate that these four fish species may require special management considerations or protection.

Cook Inlet is the most populated and industrialized region of the state. Its waters receive various pollutant loads through activities that include urban runoff, oil and gas activities (e.g., discharges of drilling muds and cuttings, production waters, treated sewage effluent discharge, deck drainage), municipal sewage treatment effluents, oil and other chemical spills, fish processing, and other regulated discharges. The EPA regulates many of these pollutants, and may authorize certain discharges under their National Pollution Discharge Elimination System (section 402 of the CWA). Management of pollutants and toxins is necessary to protect and maintain the biological, ecological, and aesthetic integrity of Cook Inlet's waters. Accordingly, ensuring the absence of toxins or other agents of a type or amount harmful to beluga whales may require special management considerations or protection.

Certain actions may have the effect of reducing or preventing beluga whales from freely accessing the habitat area necessary for their survival. Dams and causeways may create physical barriers, while noise and other disturbance or harassment might cause a behavior barrier, whereby the whales reach these areas with difficulty or, in a worst case, abandon the affected habitat areas altogether due to such stressors. Most in-water structures would be managed under several on-going Federal regulatory programs (e.g., CWA). Regulation for behavior barriers is less clear. Any significant behavioral reaction with the potential to injure whales may be

prohibited under the provisions of the ESA and MMPA. However, it is unclear whether these two acts could manage this proposed feature in the absence of designation of critical habitat and recognition of this PCE. The unrestricted passage within or between critical habitat areas may require special management considerations or protection.

We have discussed the importance of sound to beluga whales, and concern for man-made noise in their environment. There exists a large body of information on the effects of noise on beluga whales. Research on captive animals has found noise levels that result in temporary threshold shifts in beluga whale hearing. Based on this research and empirical data from beluga whales in the wild, we have established in-water noise levels that define when these animals are harassed or injured. We consider the threshold for acoustic harassment to be 160 dB re: 1 µPa for impulsive sounds (e.g., pile driving) and 120 dB re: 1 µPa for continuous noise.

No specific mechanisms presently exist to regulate in-water noise, other than secondarily through an associated authorization. Even then, there is some question whether the authorizing state, local, or Federal agency has the authority to regulate noise. Because of the importance of the ability to use sound to Cook Inlet beluga whales, the in-water noise essential feature is clearly one that may require special management considerations or protection.

While these PCEs are currently subject to the aforementioned regulatory management, there remain additional and unmet management needs owing to the fact that none of these management regimes is directed at the conservation and recovery needs of Cook Inlet beluga whales. As a result, through the ESA section 7 consultation process, we may identify reasonable and prudent measures designed to minimize impacts to the PCEs. This supports the finding that each of the identified PCEs “may require special management considerations or protection.”

Specific Areas within the Geographical Area Occupied by the Species

We previously identified the range of Cook Inlet belugas as of the time of listing (74 FR 63080; December 2, 2009) to be waters of Cook Inlet north of a line from Cape Douglas to Cape Elizabeth. We reviewed all available information on Cook Inlet beluga whale distribution, habitat use and requirements, and features essential to the conservation of these whales. Within the occupied geographical area we identified two specific areas that contain essential physical or biological features (Areas 1 and 2).

Area 1: Area 1 encompasses 1,909 square kilometers (738 sq. mi.) of Cook Inlet northeast of a line from the mouth of Threemile Creek to Point Possession. This area is bounded by the Municipality of Anchorage, the Matanuska-Susitna Borough, and the Kenai Peninsula borough. The area contains shallow tidal flats and river mouths or estuarine areas, and it is important as foraging and calving habitats. Mudflats and shallow areas adjacent to medium and high flow accumulation streams may also provide for other biological needs, such as molting or escape from predators (Shelden et al., 2003). Area 1 also has the highest concentrations of beluga whales from spring through fall as well as the greatest potential for adverse impact from anthropogenic threats.

Many rivers in Area 1 habitat have large eulachon and salmon runs. Two such rivers in Turnagain Arm, Twenty-mile River, and Placer River are visited by beluga whales in early spring, indicating the importance of eulachon runs for beluga whale feeding. Beluga whale use of upper Turnagain Arm decreases in the summer and then increases again in August through the fall, coinciding with the coho salmon run. Early spring (March to May) and fall (August to October) use of Knik Arm is confirmed by studies by Funk et al. (2005). Intensive summer feeding by beluga whales occurs in the Susitna delta area, Knik Arm, and Turnagain Arm.

Whales regularly move into and out of Knik Arm and the Susitna delta (Hobbs et al., 2000; Rugh et al., 2004). The combination of satellite telemetry data and long-term aerial survey data demonstrate beluga whales use Knik Arm 12 months of the year, often entering and leaving the Arm on a daily basis (Hobbs et al., 2005; Rugh et al., 2005, 2007). These surveys demonstrate intensive use of the Susitna delta area (from the Little Susitna River to Beluga River) and Chickaloon Bay (Turnagain Arm), with frequent large scale movements between the delta area, Knik Arm, and Turnagain Arm. During annual aerial surveys conducted by the National Marine Mammal Lab in June and July, up to 61 percent of the whales sighted in Cook Inlet were in Knik Arm (Rugh et al., 2000, 2005). The Chickaloon Bay area also appears to be used by beluga whales throughout the year.

Beluga whales are particularly vulnerable to impacts in Area 1 due to their high seasonal densities and the biological importance of the area. Because of their intensive use of this area (e.g., foraging, nursery, predator avoidance), activities that restrict or deter use of or access to Area 1 habitat could reduce beluga whale calving success, impair their ability to secure prey, and increase their susceptibility to predation by killer whales. Activities that reduce anadromous fish runs could also negatively impact beluga whale foraging success, reducing their fitness, survival, and recovery. Furthermore, the tendency for beluga whales to occur in high concentrations in Area 1 habitat predisposes them to harm from such events as oil spills.

Area 2: Area 2 consists of 5,891 square kilometers (2,275 square miles) of less concentrated spring and summer beluga whale use, but known fall and winter use areas. It is located south of Area 1, and includes nearshore areas along the west side of the Inlet and Kachemak Bay on the east side of the lower inlet.

Area 2 is largely based on dispersed fall and winter feeding and transit areas in waters where whales typically occur in smaller densities or deeper waters. It includes both near and offshore areas of the mid and upper Inlet, and nearshore areas of the lower Inlet. Due to the role of this area as probable fall feeding areas, Area 2 includes Tuxedni, Chinitna, and Kamishak Bays on the west coast and a portion of Kachemak Bay on the east coast. Winter aerial surveys (Hansen, 1999) sighted belugas from the forelands south, with many observations around Kalgin Island. Based on tracking data, Hobbs et al. (2005) document important winter habitat concentration areas reaching south of Kalgin Island.

Beluga whales have been regularly sighted at the Homer Spit and the head of Kachemak Bay, appearing during spring and fall of some years in groups of 10 to 20 individuals (Speckman and Piatt, 2000). Beluga whales have also been common at Fox River Flats, Muddy Bay, and the northwest shore of Kachemak Bay (NMFS unpubl. data), sometimes remaining in Kachemak Bay all summer (Huntington, 2000).

Deeper mid Inlet habitats may also be important to the winter survival and recovery of Cook Inlet beluga whales.

Unoccupied Areas

Section 3(5)(A)(ii) of the ESA defines critical habitat to include specific areas outside the geographical area occupied by the species at the time of listing only if the Secretary determines them to be essential for the conservation of the species. Section 3(3) of the ESA defines conservation as “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.” NMFS’ ESA regulations at 50 CFR 424.12(e) state that the agency “shall designate as critical habitat areas outside the geographical area presently occupied

by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species." We are not including unoccupied areas because there is no information available indicating that any such area may be essential to the conservation of the species.

Activities that May be Affected

Section 4(b)(8) of the ESA requires that we describe briefly and evaluate, in any proposed or final regulation to designate critical habitat, those activities that may destroy or adversely modify such habitat, or that may be affected by such designation. A wide variety of activities may affect critical habitat and, when carried out, funded, or authorized by a Federal agency, require consultation under section 7 of the ESA. These same activities may also be affected by the designation. Such activities include: coastal development; pollutant discharge; navigational projects (dredging); bridge construction; marine tidal generation projects; marine geophysical research; oil and gas exploration, development, and production; DOD activities; and hydroelectric development. We do not propose to include in critical habitat any manmade structures and the land on which they rest within the described boundaries that were in existence at the time of designation. While these areas would not be directly affected by designation, they may be affected if a Federal action associated with the area/structure (e.g., a discharge permit from the EPA) might have indirect impacts to critical habitat.

We assessed those actions that may destroy or adversely modify this critical habitat by considering recent agency guidance on conducting adverse modification analyses. Here we apply the statutory provisions of the ESA, including those in section 3 that define "critical habitat" and "conservation," to determine whether a proposed action might result in the destruction or adverse modification of critical habitat. We have not relied on the regulatory

definition of “destruction or adverse modification” at 50 CFR 402.02 because that definition has been struck down by courts. See Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059 (9th Cir. 2004). As discussed in our economic report on this designation, each action is reviewed on a case-by-case basis. Without knowledge of, or ability to predict, the specifics of a particular action or activity, it is not possible to list all those that may adversely modify critical habitat. Depending on the specific details of any action, any of the aforementioned activities that may affect critical habitat might also result in its adverse modification.

ESA section 4(a)(3)(B)(i) Analysis

The ESA was amended by the National Defense Authorization Act for Fiscal Year 2004 (Public Law 108-136) to address the designation of military lands as critical habitat. ESA section 4(a)(3)(B)(i) states: “The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the DOD, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 670a of this title [section 101 of the Sikes Act], if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

The Eagle River Flats Impact Area (ERFIA), a military live-fire practice range on Joint Base Elmendorf-Richardson, near Anchorage, provides training in artillery such as mortars. While the boundaries for the ERFIA (i.e., the MHHW line) do not overlap with the proposed critical habitat, the firing range includes the lower reaches of Eagle River which could have been included in the designation (similar to the Susitna and Little Susitna Rivers). Research by the DOD has documented beluga whale use, including feeding behavior, within this portion of Eagle River. Having consulted with the U.S. Army Garrison, Alaska, and reviewed its 2007-2011 INRMP, we have determined and set forth in writing here that the plan provides benefit to the

Cook Inlet beluga whale. The INRMP establishes coordination and consultation mechanisms with NMFS on issues which may affect Cook Inlet beluga whales, and provides specific means to reduce potential harm due to military actions on the garrison. Some of these benefits include restrictions on access to habitat areas utilized by beluga whales, mitigation measures to reduce potential harassment or injury to beluga whales from activity at the ERFIA, and implementation of research programs regarding the habitat use of Cook Inlet belugas in and adjacent to DOD property at Joint Base Elmendorf- Richardson, Alaska. For the foregoing reasons, we have determined pursuant to section 4(a)(3)(B)(i) that the beluga habitat areas occurring here (specifically; within the ERFIA) do not qualify as critical habitat.

In response to the ANPR, we received a request from the U.S. Air Force to exempt other portions of Joint Base Elmendorf- Richardson from the designated critical habitat. The Air Force sought this exemption based on the existence of an INRMP, consistent with Public Law 108-136.

The landward boundary of critical habitat (MHHW) would overlay the seaward military boundaries for Joint Base Elmendorf-Richardson, which have been established as MHW. Because the areas between MHHW and MHW are predominately unvegetated mudflats at relatively high elevations (or shallow depths) rarely used by beluga whales, and because all lands of Joint Base Elmendorf-Richardson are administered under an INRMP which we found to provide benefit to Cook Inlet beluga whales, these areas were also determined to be ineligible for designation as critical habitat.

ESA Section 4(b)(2) Analysis

Section 4(b)(2) of the ESA states that the Secretary must designate and revise critical habitat on the basis of the best scientific data available after taking into consideration the

economic impact, the impact on national security, and other relevant impacts of specifying any particular area as critical habitat. The Secretary of Commerce may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as critical habitat, unless he determines that failure to designate that area would result in the extinction of the species. In making that determination, the legislative history is clear that the Secretary has broad discretion regarding which factors to use and how much weight to give any factor. Because the authority to exclude is discretionary, exclusion is not required for any area. The section 4(b)(2) considerations are more fully described in the proposed rule. In the following sections, we address the issues relevant to our determinations under this section.

Economic Analysis

We conducted an analysis of the economic impacts of the proposed designation of critical habitat for the Cook Inlet beluga whale, under the mandates of the ESA, Executive Order 12866, Regulatory Flexibility Act, and other applicable law. Each prescribes the analytical frame-of-reference, methodology, interpretive context, and threshold criteria that must be adhered to. These include, but are not limited to, a national accounting stance, use of traditional cost/benefit analytical techniques, emphasis on changes in domestic surplus measures, whether and how impacts accrue to, and distribute across, specific populations of concern (e.g., small entities, minority communities, tribal authorities). The economic analyses were further required to (and, to the fullest extent practicable, do) employ the best scientific data and commercial information available. The analyses underwent a series of systematic technical reviews by agency scientists, attorneys, and administrators, resulting in significant revisions and refinements, both prior to, and after formal public presentation and comment periods. The draft analysis report was made available for public review and comment on our regional website. Substantive comments and

information received on the analysis are summarized above and are incorporated into the final 4(b)(2) analysis, as appropriate. Taking into account all new and relevant information, we have completed a final economic analysis. That analysis is also available on our website (see ADDRESSES above). NMFS considered the conservation benefits to the Cook Inlet beluga whale of designating two areas; the economic benefits of excluding particular areas within the two areas; and the national security benefits of excluding particular military sites and associated assets owned, heavily utilized, highly depended upon, or controlled by the DOD; and other relevant impacts or benefits, such as impacts to tribal interests, raised through the public comment process.

Benefits of Designation

The primary benefit of designating critical habitat for any endangered species is that, upon designation, section 7 of the ESA requires all Federal agencies to ensure actions they authorize, fund, or undertake are not likely to destroy or adversely modify habitat critical for the conservation and recovery of the listed species. This is in addition to the ESA's requirement that all Federal agencies ensure their actions are not likely to jeopardize the species′ continued existence. Another benefit of designation is that it provides notice of areas, PCEs, and features important to species conservation, and information about the types of activities that may reduce the conservation value of the habitat. Such notice will focus future consultations on key habitat attributes and avoid unnecessary attention to other, non-essential habitat features.

Critical habitat designation may also trigger complementary protections (i.e., benefits) under state or local regulations. In addition to the direct benefits of critical habitat designation accruing to Cook Inlet beluga whales, there are indirect benefits. These benefits may be economic in nature (whether market or non-market, consumptive, non-consumptive, or passive),

educational, cultural, and sociological, or they may be expressed through beneficial changes in the ecological functioning and service flows of Cook Inlet, which themselves yield ancillary welfare gains (e.g., improved quality of life) to the region's human population.

All these benefits are also relevant to the evaluation of the "net benefit to the Nation" attributable to critical habitat designation for the Cook Inlet beluga whale. For example, Cook Inlet is one of the "premier tourist destinations" in Alaska, and local economies throughout the inlet and surrounding region provide support services to, and benefit directly from, tourism. Beluga whales are widely identified with Cook Inlet and aggressively promoted as a "unique" and high value component of the Cook Inlet tourism experience. In addition, many local residents express strong affinity for the beluga whales and place significant "value" on the opportunity to encounter this whale in the wild. Federal, state, regional and local governments, Alaska Native peoples, civic groups, non-governmental organizations, and private citizens in the region have invested considerable money, time, and effort to promote, educate, inform, and advocate for the Cook Inlet beluga whale population (e.g., roadside visitor's centers and interpretive sights focusing public attention on, and enjoyment of, the resident beluga whale population). It follows that conservation and recovery of the Cook Inlet beluga whale population, resulting, in part, from designation of its critical habitat, would enhance the "value" tourists (and other travelers) to the inlet receive from visiting the region, and simultaneously benefit the tourism, hospitality, and affiliated services sectors.

Residents of Cook Inlet communities and surrounding areas who value the beluga whale would also be expected to experience a welfare gain, as conservation of the whale's critical habitat results in an enhanced beluga whale population, in turn, making opportunities for sightings and observation more probable and frequent. With sufficient recovery, subsistence

users could benefit from the restoration of their traditional uses of Cook Inlet beluga whales. Another benefit of designation could be the increased abundance and sustained viability of Cook Inlet salmon populations, if the environmental and ecological functions of the inlet upon which they depend are sustained or enhanced by beluga whale critical habitat designation.

Cook Inlet salmon runs support a myriad of uses and users, including: commercial fisheries and associated support sectors; recreational anglers, guides, lodges and lodging, transportation, support and affiliated businesses; subsistence communities; and personal use fishermen. Salmon constitute a critical resource for non-human users, as well. Four of the five Pacific salmon species native to the region are listed as PCEs of Cook Inlet beluga whale critical habitat. At various life stages, salmon support many other marine and terrestrial organisms (i.e., mammals, birds, and fishes) as prey species. Ancillary benefits from Cook Inlet beluga whale critical habitat designation may accrue through protection and enhancement of vital components and characteristics of the critical habitat relied upon and exploited by a vast array of species.

It is not presently feasible to monetize, or even quantify, each and every component part of the comprehensive benefit accruing from designation of critical habitat for the Cook Inlet beluga whale. We augmented the quantitative measurements that have been presented with qualitative and descriptive assessment techniques, as provided for in Executive Order 12866 and OMB Circular A-4.

With respect to the qualitative elements of this impact analysis, we have systematically assessed the expected benefit of designating the two critical habitat areas based upon their individual physical, ecological, and biological features and functions. Each area was evaluated on the basis of frequency, duration, seasonality, and behavioral characteristics (e.g., foraging, predatory avoidance, breeding, calving) of use by the beluga whales. These were (to the extent

practicable) correlated with site-specific human activity mappings in each area that, through an assumed need for Federal authorization, permits, or funding, might require one or more future ESA section 7 consultations stemming from this critical habitat designation. Based upon available information pertaining to specific structural design elements, physical attributes, construction materials and techniques, development scheduling and duration, etc., for each such identified federally authorized activity, the likelihood and nature of any substantial physical, design, or schedule modification (or other accommodation) of an anticipated Federally authorized activity were analyzed.

The benefit of a comprehensive designation also depends on the inherent conservation value arising from the complementary contribution each area makes to the whole. The two identified critical habitat areas for the Cook Inlet beluga whales are unique and irreplaceable. It is difficult to isolate the value contributed by one area, as each of the two areas supports a distinct and crucial aspect of the Cook Inlet beluga whales' life history. The designation of each particular area (i.e., Area 1 and Area 2) is essential to the conservation function of the whole. On the collective basis of these assessments, evaluations, and analyses, we conclude that there is substantial and compelling evidence that the aggregate (i.e., monetized, quantifiable, and qualitative) conservation benefits of designating the two particular areas identified as critical habitat for Cook Inlet beluga whales is high. By contrast, the expected costs, including those we could monetize, as well as those that can only be qualitatively characterized at this time, such as unspecified design modifications to potential projects, are relatively modest in comparison. Based on past experience and our professional judgment, we expect design modifications attributable solely to the designation of critical habitat will occur rarely. In the event that such a modification was to occur, it could require substantial costs, but it is also possible that the

modification would decrease overall project costs. There is no information available at this time to provide any reasonable estimate of costs for the rare and speculative project modifications attributable solely to the designation of critical habitat.

Economic Benefits of Exclusion

The economic impact analysis and preparatory 4(b)(2) assessment, prepared in connection with the designation of critical habitat, describe: the actions and activities within Cook Inlet that we estimate have some potential to be impacted by the designation; the potential nature of modifications that might be required to avoid adversely modifying or destroying critical habitat; and the expected economic impacts that may accompany such modifications.

Consideration of Benefits of Exclusion Versus Benefits of Designation of Particular Areas

After directing NMFS to consider the economic impact, the impact to national security, and other relevant impacts of specifying a particular area as critical habitat, section 4(b)(2) of the ESA provides that the Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless such exclusion will result in the extinction of the species. The benefit to the species of designation depends upon the inherent conservation value of the area, the seriousness of the threats to that conservation value, and the extent to which an ESA section 7 consultation or other aspects of designation will ameliorate those threats. If a particular action or activity, which is authorized, funded, or carried out by the Federal Government, may destroy or adverse modify critical habitat (as distinct from the “jeopardy” prohibition under section 7), one may isolate and measure the incremental benefit of designation, beyond those protections also provided by virtue of the listing.

We have endeavored to identify the categories of actions and activities within each of the two proposed designated areas that may have the potential to destroy or adversely modify critical habitat. Based upon these categorical lists, the analysis has, to the extent possible in light of the best scientific data and commercial information available, identified and analyzed project-specific impacts attributable to the proposed designation. With a few notable exceptions identified in the analyses, detailed engineering design, construction methods, materials, and schedules, and financing/investment/cost information are not readily available on a project-by-project basis, particularly for plans that are far off into the future. Notwithstanding these empirical data limitations, we have systematically and objectively evaluated the likely economic impact to future development and use uniquely attributable to the beluga whale critical habitat designation in Cook Inlet.

We have determined that designation of critical habitat will enhance the nation's welfare by augmenting the Federal Government's ability to conserve this endangered species and ensuring Federal actions do not destroy or adversely modify habitat critical to that end. This outcome would be facilitated through ESA section 7 consultations and through ongoing public involvement, outreach, information, and education.

The benefits of exclusion of any particular area, as contemplated under section 4(b)(2), involve many of the same considerations identified in assessing the benefits of designation. Among these would be the likelihood or expectation of a Federal action occurring within the particular area under scrutiny. Should such an action or activity be identified, it could trigger one or more of the ESA section 7 consultation requirements. If any such consultation resulted in the determination that the action would destroy or adversely modify critical habitat (or jeopardize the continued existence of the species), we would attempt to identify reasonable and

prudent alternatives that allow the project to go forward but avoid adverse modification/jeopardy by changes to design, construction practices, or scheduling. For the benefit-of-designation side of the equation, it is the incremental cost of designation incurred (or, if exclusion of any particular area is justified, the incremental cost avoided), uniquely attributable to designation, that should, to the extent practicable, be evaluated. By disentangling the sources of section 7 consultation effects, we can more appropriately weigh those incremental costs of designation, distinct from the cost associated with listing and the jeopardy prohibition.

In balancing the potential costs of designation, we considered the nature of the threats to critical habitat and the relevance to these threats of ESA section 7′s requirement that Federal actions avoid causing the destruction or adverse modification of critical habitat. Because in the present case the condition of adverse modification is likely to be associated with certain work along the Cook Inlet shoreline (and in-water construction and development), and because some modifications to design, construction practices, or scheduling of such projects are possible as a result of consultation, we gave these costs of designation moderately high weight. Such construction and development has the potential to alter several of the identified PCEs of beluga whale habitat, including, but not limited to, in-water noise levels, access to passage corridors, and access to shallow areas for feeding, breeding, or predator escape use. Further, we recognize that the adverse modification/destruction of critical habitat criterion bears a strong relationship to water quality management (e.g., municipal waste water discharge, oil spills, gas and oil drilling discharges, dredge spoils disposal, bilge and ballast discharges), but we lack sufficient point-source and project-specific data to quantitatively estimate any potential attributable economic impact. Nonetheless, we recognize their significance and qualitatively assigned these costs of critical habitat designation a moderate weight.

However, our analysis found few cases where these costs were not co-extensive. We evaluated these incremental costs (i.e., costs beyond those associated with the jeopardy standard), and concluded that the economic benefits of excluding any particular area do not outweigh the conservation benefits of including each particular area within the critical habitat designation, given the endangered status of the whales, the uniqueness and irreplaceable attributes of the habitat, and the fact that designation will enhance the ability of an ESA section 7 consultation to facilitate cost effective and successful protection of this critical habitat.

Exclusion for National Security Reasons

We received a request from the Port of Anchorage to exclude both the Port of Anchorage and Port MacKenzie from critical habitat designation based on national security considerations. While the DOD itself did not make a request to exclude the POA, DOD has designated the POA as one of nineteen Strategic Ports, which forms the basis for our exclusion. NMFS conferred with the Alaska Command after the request from the POA for the exclusion and the Alaska Command confirmed that the POA is a strategic port that could be excluded from critical habitat designation. Both the Port of Anchorage and Port MacKenzie are within the boundaries we proposed for critical habitat designation and include docking facilities, nearshore areas and structures such as docks, piers, and wharfs, and offshore navigational channels, turning basins, anchorage areas, and areas with security restrictions enforced by the U.S. Coast Guard (USCG).

In making its request for an exclusion, the POA asserts that it is strategically important for military readiness. The DOD did not request the exclusion of the POA, but confirmed, through the Alaskan Command, that the U.S. Army's worldwide deployments from Alaska go through the POA, and that since 2005, over 18,000 pieces of military-related cargo-combat

vehicles, weaponry, and support equipment have passed through the POA on their way to and from the Middle East and training grounds in the Lower 48 and the Western Pacific.

In addition, the POA is one of nineteen ports designated by the DOD as a Strategic Port. There are four military bases located in Alaska (Joint Base Elmendorf-Richardson, Eielson AFB, Ft. Wainwright, and Ft. Greely), and the POA supports the U.S. military in Alaska as its primary source of daily operating supplies. Over 33 million gallons of aviation fuel for the military are offloaded annually at this port.

Thus the U.S. military's ability to deploy to combat theaters around the globe is heavily dependent on sealift through the POA. Particularly in times of active warfare, it is critical that there be no unnecessary delays in deployment or reductions in military readiness. In short, the POA plays a vitally important role in ensuring the readiness of military operations in Alaska.

We have conferred with the Alaskan Command and conclude that the benefits of exclusion outweigh the benefits of inclusion. The principal benefit from excluding the POA is avoiding the risk that the designation might impede the POA's operations or otherwise result in a reduction in military readiness. The costs of including the area as critical habitat generally include the costs (including delays) associated with ESA section 7 consultation under the destruction/adverse modification of critical habitat standard, any change in the POA's activities or functions necessary to avoid adverse modification or destruction of critical habitat, and any concomitant reduction in military readiness. Given that the DOD has stated the POA is critical to military operations in and deploying out of the State of Alaska, any delays in military movements through the POA could reduce the ability of the military to ensure national security.

By contrast, we believe the benefits to the conservation of the Cook Inlet beluga whale from designating the particular area subject to the exclusion as critical habitat are small. Even

with the exclusion, Federal agencies would still have to consult to ensure that their activities do not jeopardize the continued existence of the Cook Inlet beluga whale, which would include any direct, indirect, or cumulative effects of the action on critical habitat adjacent to the excluded area. Moreover, any Federal actions at the POA that may adversely affect or destroy critical habitat areas not excluded by this rule would remain subject to all of section 7's consultation requirements. Therefore, most of the conservation benefits will accrue despite the exclusion.

In assessing the impacts of this critical habitat designation on national security, we considered the following factors: (1) the size of the particular area requested for exclusion relative to the area proposed for critical habitat designation; (2) the likelihood of a consultation with the DOD, or of a consultation having direct impact on DOD in this area; (3) the intensity of use of the area by the DOD; (4) the likelihood that DOD activities would destroy or adversely modify the critical habitat; (5) the level of protection provided to one or more PCEs by existing DOD safeguards, and (6) the likelihood that other Federal actions may occur in the particular area that would no longer be subject to the critical habitat provisions if the area were excluded from designation.

Factors 1, 3, 4, and 6 weigh in favor of the exclusion. The area excluded is very small in contrast to the area included – less than 1 percent of the habitat proposed for designation in Cook Inlet. It appears unlikely that most DOD activities associated with the POA would require consultation on critical habitat because cargo loading and ship movement should not affect that habitat or the identified essential features. There appears little probability that DOD activities here would be likely to destroy or adversely modify critical habitat. Finally, there are no other Federal actions expected to occur that would no longer be subject to the critical habitat provisions if the area were excluded from designation. As for the remaining factors, factor 2 is

neutral, and factor 5 weighs against granting the exclusion since we are unaware of any existing protections provided by DOD to the PCEs within the excluded area.

We also considered the high priority placed on national security, the potential for designation of critical habitat to impact military readiness, and the total habitat value represented by this area. Based on our assessment of these considerations, we conclude that benefits to national security of exclusion outweigh the conservation benefits of inclusion. We, therefore, are not designating the POA, nor its immediately adjacent offshore operational area, as critical habitat. See Figure 1 for the specific areas and excluded area.

While the POA exclusion area contains some of the essential features of this critical habitat, those features exist throughout the designated habitat and are not unique to the POA area. The area of the POA is less than 1 percent of the available habitat within Cook Inlet, and its exclusion would not be likely to result in the extinction of this DPS.

Port MacKenzie is not listed as a Strategic Port, nor is it currently adjacent to military lands, accessible by a major road system, utilized for munitions transfers, or serviced by rail. We received no supporting recommendations for this exemption from the DOD, and did not find substantial evidence of impacts to national security because of Port MacKenzie's inclusion as critical habitat. In light of the conservation benefits described in this rulemaking from its inclusion, we decline to exercise our discretion to exclude Port MacKenzie from the critical habitat designation.

Conclusions

With one exception, we conclude that the benefits from excluding any and each particular area do not outweigh the benefits of designation as critical habitat, upon consideration of: (1) the functional role of critical habitat and its essential features in the conservation of Cook Inlet

beluga whales; (2) the benefits of designation to Cook Inlet beluga whales in terms of enhanced ability to protect or conserve this habitat under ESA consultation; and (3) the economic costs borne by any and each particular area's inclusion. We conclude that, based on consideration of the impact to national security, the benefits from excluding the POA from the critical habitat designation outweigh those for its inclusion, and we have determined not to designate this particular area as critical habitat for the Cook Inlet beluga whale.

Critical Habitat Designation

This final rule will designate as critical habitat for the Cook Inlet beluga whale 7,800 square kilometers (3,013 square miles) of marine and estuarine area in Cook Inlet, Alaska, within the geographical area occupied by this species. In determining this critical habitat, we considered comments received in response to the Advance Notice of Proposed Rulemaking (74 FR 17131; April 14, 2009), the proposed rule (74FR 63080; December 2, 2009), peer review, public hearings; sighting reports, satellite telemetry data, TEK, scientific papers and other research; the biology and ecology of the Cook Inlet DPS of beluga whales; and information indicating the presence of one or more of the identified PCEs within certain areas of their range. We designate critical habitat within two areas of Cook Inlet.

The designated critical habitat does not include two areas for which the military has provided an INRMP that we have determined provides benefits to the Cook Inlet beluga whale pursuant to section 4(a)(3)(B)(i) of the ESA: (1) the Eagle River Flats Range on Fort Richardson; and (2) military lands of Joint Base Elmendorf-Richardson between Mean Higher High Water and Mean High Water. In addition, we have determined that the benefits of excluding the Port of Anchorage and adjacent navigation channel and turning basin outweigh the benefits of including it because of national security reasons, and excluding these areas will not

result in the extinction of the Cook Inlet beluga whale. We are not designating any unoccupied geographical areas as critical habitat.

Classification

Regulatory Planning and Review (Executive Order 12866)

This final rule has been determined to be significant for purposes of E.O. 12866. The economic benefits and costs of this critical habitat designation are described in our economic report supporting this rulemaking.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996, whenever an agency is required to publish a notice of proposed rulemaking for any proposed rule, it must either certify that the action is not likely to result in significant adverse economic impacts on a substantial number of small entities; or it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). We have prepared a final regulatory flexibility analysis (FRFA), as part of our economic analysis. Responses to comments on this document are provided above in the preamble to the rule, and any necessary changes were made to the FRFA.

The reasons for the action, a statement of the objectives of the action, and the legal basis for the final rule are discussed earlier in the preamble. A summary of the analysis follows.

The small entities that may be directly regulated by this action are those that seek formal approval (e.g., a permit) from, or are otherwise authorized by, a Federal agency to undertake an action or activity that “may affect” critical habitat for the Cook Inlet beluga whale. Submission

by a small entity of such a request for a Federal agency's approval would require that agency (i.e., the 'action agency') to consult with NMFS (i.e., the 'consulting agency').

Consultations vary from simple to highly complex, depending on the specific facts of each action or activity for which application is made**.** Attributable costs are directly proportionate to complexity. In the majority of instances projected to take place under this critical habitat designation, these costs are expected to accrue solely to the Federal agencies that are party to the consultation. In only the most complex formal consultations, a private sector applicant might incur costs directly attributable to the designation consultation process. For example, if the formal consultation concludes that the proposed activity is likely to destroy or adversely modify critical habitat, the applicant will have to implement modifications to avoid such effects. These modifications have the potential to result in adverse economic impacts, although they need not necessarily do so.

An examination of the Federal agencies with management, enforcement, or other regulatory authority over activities or actions within, or immediately adjacent to, the designated critical habitat area, resulted in the following list: the ACOE, EPA, Minerals Management Service (MMS), Maritime Administration (MARAD), USCG, DOD, NMFS, Federal Highway Administration (FHWA), Federal Energy Regulatory Commission (FERC), and Federal Aviation Administration (FAA). Activities or actions that require Federal authorization, permits, or funding, and which may be expected to require some level of consultation, include: COE permits for structures and work in waters of the United States; EPA permitting of discharges under the National Pollutant Discharge Elimination System; MMS oil and gas exploration and production permitting in Federal waters of Cook Inlet; MARAD permits for the POA expansion; USCG permits for spill response plans; DOD activities at Joint Base Elmendorf-Richardson facilities;

NMFS authorizations of commercial fisheries, and review of subsistence harvest allowances; FHWA funding of highway and bridge improvements along Turnagain Arm; FERC permits for turbine electrical generation projects (wind and tidal); and FAA permitting of regional airport expansions and development.

A 10-year "post-critical habitat designation" analytical horizon was adopted, during which time NMFS may reasonably expect to consult on critical habitat-related actions with one or more of the action agencies identified above. The majority of the consultations are expected to be "informal" (we estimate 90 percent of all consultations would be informal). In each of these, no adverse impacts would accrue to the entity or applicant requesting Federal action. The more complex and costly formal consultations are projected to account for, perhaps, ten percent. Here, NMFS and the Federal action agency may develop alternatives that prevent the likelihood that critical habitat will be destroyed or adversely affected. The extent to which these formal consultations will result in more than de minimus third party costs, as well as whether such third parties constitute small entities for Regulatory Flexibility Act purposes, cannot be predicted. Often, no consultation will be necessary, as all questions can be resolved through the "technical assistance" process.

We lack sufficient information to estimate precisely the number of consultations that may result in a determination of destruction or adverse modification to critical habitat. However, on the basis of the underlying biological, oceanographic, and ecological science used to identify the PCEs that define critical habitat for the Cook Inlet beluga whale, as well as the foregoing assumptions, empirical data, historical information, and accumulated experience regarding human activity in Cook Inlet, we believe that various federally authorized activities have the potential to "destroy or adversely modify" Cook Inlet beluga whale critical habitat. While we

are unable to predict in advance exactly which activities might result in the destruction or adverse modification of the designated critical habitat, we note that such activities are restricted to those actions impacting the identified essential features, or PCEs. Importantly, however, an action that may adversely affect a PCE is not necessarily one that will result in the destruction or adverse modification of the proposed critical habitat.

Executive Order 13211

On May 18, 2001, the President issued an E.O. on regulations that significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking any action that promulgates or is expected to lead to the promulgation of a final rule or regulation that (1) is a significant regulatory action under E.O. 12866 and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy.

We have considered the potential impacts of this action on the supply, distribution, or use of energy and finds the designation of critical habitat will not have impacts that exceed the thresholds identified above.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act, we make the following findings:

(a) This final rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute or regulation that would impose an enforceable duty upon State, local, tribal governments, or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a

condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding" and the State, local, or tribal governments "lack authority" to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.)

"Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program." The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the ESA, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above to State governments.

(b) Due to the prohibition against the take of this species both within and outside of the designated areas, we do not anticipate that this final rule will significantly or uniquely affect small governments. As such, a Small Government Agency Plan is not required.

Takings

In accordance with E.O. 12630, the final rule does not have significant takings implications. A takings implication assessment is not required. The designation of critical habitat affects only Federal agency actions. Private lands do not exist within the designated critical habitat and therefore would not be affected by this action.

Federalism

In accordance with E.O. 13132, this final rule does not have significant federalism effects. A federalism assessment is not required. In keeping with Department of Commerce policies, we have requested information from, and will continue to coordinate this critical habitat designation with appropriate state resource agencies in Alaska. This designation may have some benefit to state and local resource agencies in that the areas essential to the conservation of the species are more clearly defined, and the PCEs of the habitat necessary to the survival of Cook Inlet beluga whale are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist local governments in long-range planning (rather than waiting for case-by-case ESA section 7 consultations to occur).

Civil Justice Reform

In accordance with E.O. 12988, the Department of Commerce has determined that this final rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of

the ESA. This final rule uses standard property descriptions and identifies the PCEs within the designated areas to assist the public in understanding the habitat needs of the Cook Inlet beluga whale.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This final rule does not contain new or revised information collection for which the Office of Management and Budget (OMB) approval is required under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

National Environmental Policy Act

NMFS has determined that an environmental analysis as provided for under the National Environmental Policy Act of 1969 for critical habitat designations made pursuant to the ESA is not required. See Douglas County v. Babbitt, 48 F.3d 1495 (9th Cir. 1995), cert. denied, 116 S.Ct. 698 (1996).

Government-to-Government Relationship

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust

resources, and the exercise of tribal rights. E.O. 13175 - Consultation and Coordination with Indian Tribal Governments- outlines the responsibilities of the Federal Government in matters affecting tribal interests. Public Law 108-199 (2004), codified in notes to 25 U.S.C. 450, requires all Federal agencies to consult with Alaska Native corporations on the same basis as Indian tribes under this Executive Order.

We have determined that designation of critical habitat for the Cook Inlet beluga whale in Cook Inlet, Alaska, would not have tribal implications, nor affect any tribal governments or Native corporations. Although the Cook Inlet beluga whale may be hunted by Alaska Natives for traditional use or subsistence purposes, none of the designated critical habitat areas occurs on tribal lands, affects tribal trust resources, or the exercise of tribal rights.

References Cited

A complete list of all references cited in this rulemaking can be found on our website at http://www.fakr.noaa.gov/ and is available upon request from the NMFS office in Juneau, Alaska (see ADDRESSES section).

List of Subjects in 50 CFR Part 226

Endangered and threatened species.

Dated: April 1, 2011.

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John Oliver,

Deputy Assistant Administrator for Operations,

National Marine Fisheries Service.

For the reasons stated in the preamble, we amend 50 CFR part 226 as follows:

PART 226--[AMENDED]

1. The authority citation of part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

2. Add § 226.220, to read as follows:

§ 226.220. Critical habitat for the Cook Inlet beluga whale (Delphinapterus leucas).

Critical habitat is designated in Cook Inlet, Alaska, for the Cook Inlet beluga whale as described in paragraphs (a) and (b) of this section. The textual description of this critical habitat is the definitive source for determining the critical habitat boundaries. General location maps are provided for general guidance purposes only, and not as a definitive source for determining critical habitat boundaries. Critical habitat does not include manmade structures and the land on which they rest within the designated boundaries described in paragraphs (a)(1) and (2) of this section that were in existence as of [Insert date 30 days after date of publication in the FEDERAL REGISTER].

(a) Critical Habitat Boundaries. Critical habitat includes two specific marine areas in Cook Inlet, Alaska. These areas are bounded on the upland by Mean High Water (MHW) datum, except for the lower reaches of four tributary rivers. Critical habitat shall not extend into the tidally-influenced channels of tributary waters of Cook Inlet, with the exceptions noted in the descriptions of each critical habitat area.

(1) Area 1. All marine waters of Cook Inlet north of a line from the mouth of Threemile Creek (61° 08.5’ N., 151° 04.4’ W.) connecting to Point Possession (61° 02.1’ N., 150° 24.3’

W.), including waters of the Susitna River south of 61° 20.0’ N., the Little Susitna River south of 61° 18.0’ N., and the Chickaloon River north of 60° 53.0’ N.

(2) Area 2. All marine waters of Cook Inlet south of a line from the mouth of Threemile Creek (61° 08.5’ N., 151° 04.4’ W.) to Point Possession (61° 02.1’ N., 150° 24.3’ W.) and north of 60° 15.0’’N., including waters within 2 nautical miles seaward of MHW along the western shoreline of Cook Inlet between 60° 15.0’ N. and the mouth of the Douglas River (59° 04.0’ N., 153° 46.0’ W.); all waters of Kachemak Bay east of 151° 40.0’ W.; and waters of the Kenai River below the Warren Ames bridge at Kenai, Alaska.

(b) A map of the designated critical habitat for Cook Inlet beluga whale follows (Figure 1).
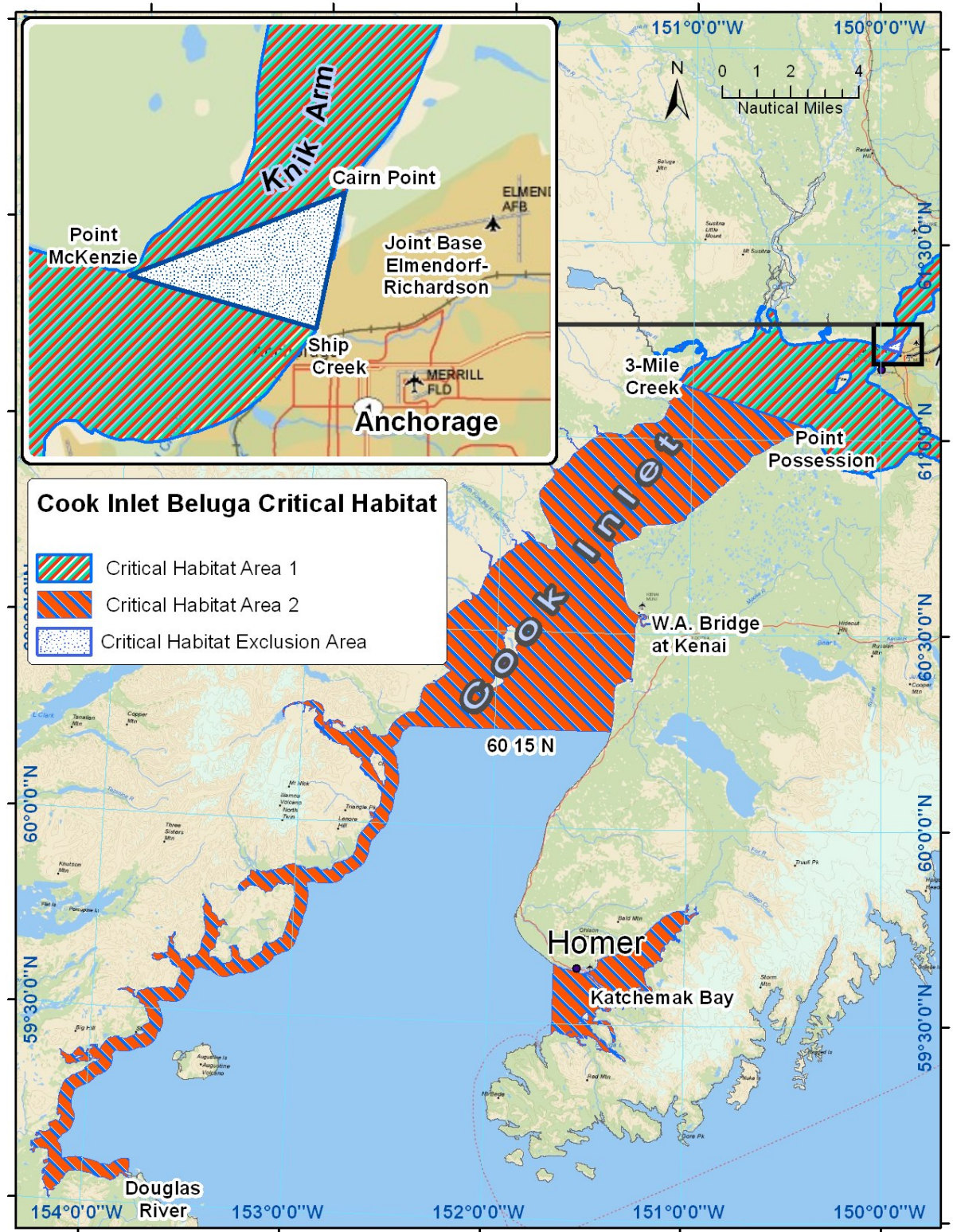
Figure 1. Cook Inlet beluga whale critical habitat.

(c) Primary constituent elements. The primary constituent elements essential to the conservation of the Cook Inlet beluga whale are:

(1) Intertidal and subtidal waters of Cook Inlet with depths <30 feet (MLLW) and within 5 miles of high and medium flow anadromous fish streams.

(2) Primary prey species consisting of four species of Pacific salmon (Chinook, sockeye, chum, and coho), Pacific eulachon, Pacific cod, walleye pollock, saffron cod, and yellowfin sole.

(3) Waters free of toxins or other agents of a type and amount harmful to Cook Inlet beluga whales.

(4) Unrestricted passage within or between the critical habitat areas.

(5) Waters with in-water noise below levels resulting in the abandonment of critical habitat areas by Cook Inlet beluga whales.

(d) Sites owned or controlled by the Department of Defense, or of interest to national security. Critical habitat does not include the following areas owned by the Department of Defense or for which the Secretary has determined to exclude for reasons of national security:

(1) All property and overlying waters of Joint Base Elmendorf-Richardson between Mean Higher High Water and Mean High Water; and

(2) All waters off the Port of Anchorage which are east of a line connecting Cairn Point (61° 15.4’ N., 149° 52.8’ W) and Point MacKenzie (61° 14.3’ N., 149° 59.2’ W) and north of a line connecting Point MacKenzie and the north bank of the mouth of Ship Creek (61° 13.6’ N., 149° 53.8’ W).